HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 16, NO. 12, ABSTRACTS 1677-1835. DECEMBER 1976

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HOSPITAL ABSTRACTS

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HOSPITALS IN GENERAL

1677. AERT, J. H. van and MONTFORT, A. D. W. P. van. **Function classification of general hospitals in the light of the basic research cost structure for hospitals. Part 3.** Utrecht, Nationaal Ziekenhuisinstituut, 1976, 45pp.

Basisonderzoek Kostenstruktuur Ziekenhuizen (BKZ) or the basic research cost structure of hospitals aims to quantify the cost and structure of hospitals by measuring the factors that influence cost. In this report a further examination is made of classification of hospital functions. It is in four parts: (i) function classification based on the composition of the medical staff; (ii) function classification based on the facilities; (iii) integration of (i) and (ii); and (iv) development in time in relation to the function classification of general hospitals.

HOSPITALS IN OTHER COUNTRIES

See also Abstract No. 1735

1678. ERMANN, M. D. **The social control of organizations in the health care area.** *Health and Society*, New York, 1976, vol. 54, no. 2, pp. 167-183.

The autonomy and influence of health care professionals in the United States appears to be declining, although it is higher in health care than in any other economic sphere. Changing models of organizational behaviour in the health care field are analysed. Three aspects of how organizations and their environment produce control are considered: (i) the non-profit motives of many health care organizations; (ii) the system of interrelationships in health care organizations; and (iii) the differences among health care consumers. The alternative methods used for modelling the increasing problems of controlling health care organizations are outlined. American thought has gradually abandoned profit as a prime explanatory variable in many areas and moved towards systems, and rejected bureaucratic efficiency in favour of group differences. Wholesale acceptance of the idiosyncratic model could have unfortunate consequences for the health care field. It is suggested that knowledge of organizational control is needed as the basis for redeveloping organizational control technologies since current technology, in the absence of such knowledge, has been based upon ideology and popular culture.

1679. HATTINGA VERSCHURE, J. C. M. **The demise of the hospital.** *Health Care Management Review*, Germantown, Md., 1976, vol. 1, no. 3, pp. 27-33.

Examining health services in the Netherlands, where he is medical administrator of two hospitals with a total of 1,300 beds, the author notes an increasing strain between the consumer's demand for greater amounts of health care, and a network of hospital services that becomes increasingly difficult to maintain. Four trends have led to increased

use of health services: (i) excessive activity by the medical profession; (ii) overestimation of one's individual existence; (iii) perversion of the notion of illness; and (iv) a general consumerism that characterizes our society. At the same time the cost of hospital services has been strongly influenced by a less stringent work ethic and rises in wages. It must be recognized that it would be of little use to remove or otherwise solve one or more of these trends. If the present cycle is to be broken and the disruption of the system prevented, personal care for the maintenance of one's health—physical, spiritual, social—must regain a position of central importance.

PLANNING, DESIGN AND CONSTRUCTION

See also Abstract Nos. 1738, 1811

1680. **Institutional planning.** *Hospitals*, Chicago, 1976, June 16, vol. 50, no. 12, pp. 65-130.

This feature has nine papers which focus on institutional planning, and its relationship to areawide, state and national health care planning activities in the United States. Aspects covered include: the need for co-ordinating all the elements of the health care system for satisfactory planning; establishment of planning associations; the role and responsibilities of the hospital planner; aims and needs of hospitals according to type, size and site; multihospital arrangements; methods of defining community needs for long-range planning; interrelationship between hospitals, health associations and state agencies; influence of hospitals on health policies; and the effect of unrealistic expectations upon health service planning.

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

See Abstract No. 1785

SELECTION OF SITE: ACQUISITION OF LAND

See also Abstract No. 1805

1681. Bosanac, E. M., Parkinson, R. C. and Hall, D. S. **Geographic access to hospital care: a 30-minute travel time standard.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 616-624.

A study of all the residents of West Virginia identifies the number and characteristics of people who live within and beyond 30-minute travelling time to general hospitals. The findings indicated that nearly 90 per cent of West Virginia's population lives within 30 minutes of a short-term general hospital, and 183,000 people (or 10.5 per cent) live outside the 30-minute standard. These people live in areas comprising over 28 per cent of the state's land area. The relatively isolated individuals are characterized as having socio-demographic attributes associated with high medical needs. Possible applications of the travel time tool data are discussed.

HOSPITAL DESIGN

1682. **British hospitals home and overseas. 12th edition.** Maidstone, Whitehall Press, 1976, 68pp. £2.00

This publication contains 21 short papers, with photographs and plans, on British hospital building and equipment projects at home and overseas. Also included are lists of architects, consulting engineers and building and engineering contractors for hospital projects.

1683. D'AGNOLO VALLAN, F. L'ospedale generale per acuti i problemi della flessibilità. **[The acute general hospital and problems of flexibility.]** *Tecnica Ospedaliera*, Milan, 1976, July/Aug., vol. 6, nos. 7/8, pp. 14-31.

In the first part of this paper an architect discusses in very abstract terms the need for flexibility in hospital construction, in particular the need for flexibility in the design and layout of what the author calls the 'fixed and mobile clinical technology', in other words the diagnostic and therapeutic areas and the wards. The second part is a short critique, with 12 plans, of the design of 10 modern hospitals, most of which do not meet the author's standards of flexibility because they leave little or no room for adaptation or expansion in these areas.

1684. **Health facilities planning and design.** *Architecture in Greece*, Athens, 1976, no. 10, pp. 79-235.

This feature has 29 papers arranged in five groups: (i) general concepts and planning; (ii) design of hospital facilities—general aspects; (iii) design and application—current trends; (iv) research in the design and planning of health facilities; and (v) organization of health care and hospital facilities in Greece. Groups (ii), (iii) and (iv) include papers on North America, the United Kingdom and Scandinavia by experts from those areas. The papers are in Greek, but all have summaries or translations in English and most of the many plans, diagrams and photographs have captions in English.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

1685. DESPOTOPOULOS, J. G. **The Greek Red Cross Hospital.** *Architecture in Greece*, Athens, 1976, no. 10, pp. 203-206; summary in English, pp. 203-204.

The Greek Red Cross Hospital is planned to serve as a diagnostic, hospital care and educational centre, with 1,100 beds and a diagnostic capacity of 2,000 patients a day. In the main building, a 15-storey tower block containing 570 surgical and intensive care beds rises above a three-storey podium containing medical and technical facilities for diagnosis and treatment, together with accommodation for staff education and training. The hospital has been constructed on a grid of eight by eight metres. Every column is provided with openings in two to four directions for the horizontal distribution of ducts and pipes and the installation of suspended ceilings. These openings are spaced every 1.30 m. in the podium and every 0.80 m. in the tower. Six plans and three views of a model are included. [This abstract has been prepared from an English summary of the paper.]

1686. **The 'Hygeia' diagnostic and therapeutic centre of Athens.** *Architecture in Greece*, Athens, 1976, no. 10, pp. 211-213; summary in English, p. 211.

This hospital has 350 beds in a 10-storey block. Each floor has a 34-bed unit, except the first which houses the maternity services and the 10th which is occupied by luxury suites. The building has two vertical communication systems: (i) a staircase and lifts in direct contact with the entrances; and (ii) a staircase and service lifts (which take stretchers) providing a direct link with the operating suite, intensive care unit and laboratories. The tower rises about a two-storey podium housing diagnostic, treatment and supporting facilities, including a computerized multiphasic screening unit. Three plans and five photographs are included. [This abstract has been prepared from an English summary of the paper.]

1687. GUNDERSEN, G. Københavns Kommunes Hospital i Hvidovre. **[Copenhagen Municipal Hospital, Hvidovre.]** *Tidsskrift for danske Sygehuse*, København, 1976, July/Aug., vol. 52, pp. 125-144.

The 1,000-bed Hvidovre Hospital (architects: Krohn & Hartvig Rasmussen) was planned between 1961 and 1968 as one of the four hospitals in the reorganized Copenhagen health services. The hospital is constructed in four storeys, with the five ward sections on the upper two floors and therapeutic departments below them. Under the basement is a tunnel for the automated transport system (see *Hospital Abstracts*, Vol. 16, Abstract 1539). Departments which traditionally co-operate closely with associated ambulatoria, have been sited near each other. Staff changing rooms, the 80-seat staff canteens, and the external access facilities including car parks are decentralized to cut down transport distances. All supply services come from centralized units (kitchen, stores and sterilization department), requisitions being by data communication system. Rooms, constructional units and inventory are all highly standardized, and the design provides ample opportunity for external extensions and internal regrouping, inner walls being made of gypsum panels. All portions of walls bearing sanitary installations are supplied with the item(s) concerned cast in place. There is a highly efficient colour-coded internal signpost system, visitors being able to draw coloured tram-ticket-sized corridor-guides from machines at the entrances. The paper includes three external and 50 internal photographs and 21 plans. [A description of this hospital in German appears in: *Bauen & Wohnen*, Zürich, 1976, June, vol. 30, no. 6, pp. 212-216.]

1688. **New ward block at Wairau.** *New Zealand Hospital*, Wellington, 1976, June, vol. 27, no. 12, pp. 11, 13.

This two-storey building at Wairau Hospital, Blenheim (architects: McArthur & Reeve, Blenheim) has 37 medical beds on the ground floor, including six in a combined intensive care and coronary care unit, and 34 surgical beds on the first floor, including four isolation units. Comfortable dining and day rooms are provided on both floors. Features include the use of colour in finishing and furnishing materials and the use of sheet vinyl wall finishes, stainless steel door frames, etc. to reduce maintenance work. The basement contains an activities room, especially for use in the rehabilitation of patients, and staff changing rooms. The paper includes four photographs but no plans.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract Nos. 1774 (Laboratories), 1777 (Blood transfusion department)

1689. SCHJERVEN, A. Klinisk-kjemiske laboratorier: fysiokjemikerens syn. **[The physical chemist's view of the clinical chemistry laboratory.]** *Sykehuset*, Oslo, 1976, vol. 39, no. 4, pp. 189-197.

In laboratory planning, the future staff should be drawn into the planning process at as early a stage as possible. There should be a special sample-taking unit in the out-patient department, with a sample-taking room, waiting room and toilets. All laboratory services in a hospital should share the same office facilities. Samples should be delivered through service hatches, to avoid unnecessary traffic. Primary laboratories should be roomy, well-lit and well-equipped; the central laboratory requires a semi-circular working area round a central distribution point. There should be separate working areas for samples requiring and not requiring centrifuging. Transport should be automated as far as possible, but the transport system must run smoothly, or samples will be shaken, spilt and broken. The laboratory itself requires plenty of drawers, cupboards and shelves, and space for storing reagents and apparatus; heavy apparatus should stand away from walls, so that one can get down behind it to clean. Air extractors, lighting, seating and bench height should be carefully planned in consultation with experts. Destruction of used materials is a problem: storage space must be provided for large plastic containers awaiting removal. There should be teaching accommodation, pleasant staff rooms, a secure changing- and locker-room, and readily accessible first aid and fire materials.

1690. Die Planung einer Intensivpflegeabteilung und deren Ausstattung mit Überwachungsgeräten. **[The planning of an intensive care unit and its equipment with monitoring apparatus.]** *Veska*, Aarau, 1976, July, vol. 40, no. 7, pp. 348-350.

The intensive care unit should be in direct communication with the operating suite and the recovery room and should be readily accessible from wards, the diagnostic X-ray department and the casualty department. If possible it should have its own separate vertical communication with sterile supply, pharmacy and laboratory. The optimal number of beds in a unit lies between eight and 10 with an absolute maximum of 12. In a 12-bed unit there should be, for each shift, one registered nurse and one assistant nurse for each three to four beds, and a sister and a senior anaesthetist for the 12 beds. Equipment is discussed under four heads: for acute and critical cases; for measurement, observation and recording of vital functions; for treatment; and for diagnosis. Equipment for patient monitoring is of primary importance. The patient/instrument ratio for certain items of measuring apparatus is set out in the form of a table.

1691. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGSINSTITUT. Intensivvård—funktioner, lokalprogram, planlösningar. **[Intensive care—functions, facilities, layouts.]** (Spri råd 5.23) Stockholm, Spri, 1975, 32pp.

This advice note provides descriptions of the functions of four types of intensive care: resuscitation, post-operative, general and coronary. It then discusses the need for and organization of co-ordination and presents layouts for three types of combined intensive care unit. [This abstract has been prepared from an English summary of the publication.]

DESIGN OF SPECIAL HOSPITALS OR UNITS

See also Abstract No. 1835 (Psychiatry)

1692. BINI, V. A proposito di cronici. **[A plan for the chronic sick.]** *Tecnica Ospedaliera*, Milan, 1976, July/Aug., vol. 6, nos. 7/8, pp. 35-42.

The chronic sick are defined as those who, after adequate investigation and treatment, cannot be restored to self-sufficiency. The author discusses various methods of caring for them—day hospitals, home nursing, rest homes, etc.—and suggests that a census should be carried out in Italy to discover how many persons have been labelled as chronic sick through ignorance, convenience, or error, and to clarify the true dimensions of the problem. He then briefly describes, with the help of six plans, the small sheltered housing scheme in Brisighella designed by Vittorio Brini. This consists of 38 housing units built on either side of a health centre; the latter incorporates an out-patient clinic, physiotherapy and ergotherapy units, baths, showers, and chiropody facilities. Two other sheltered housing schemes are within walking distance of this centre.

1693. BARROWCLOUGH, F. **Design for geriatric care.** *Nursing Times*, London, 1976, Aug. 26, vol. 72, no. 34, pp. 1330-1331.

The standard geriatric ward design used by the West Midlands Regional Health Authority is a vast improvement in terms of general décor and facilities for patients and staff. However it still fails to meet some of the needs of a modern geriatric service. Deficiencies noted by staff working in these units include: (i) limited observation of patients; (ii) no easy access to facilities provided for patients; (iii) inadequate toilet facilities; (iv) inadequate day space; (v) lack of rehabilitation facilities at ward level; (vi) no launderette facilities for care of personal clothing; and (vii) no separate service entrance. To meet the aims of a modern geriatric service, facilities and space are required for assessment, treatments, basic care, rehabilitation, continuing care, and social work support.

1694. REINGOLD, J. **A master plan approaches its goal.** *Hospitals*, Chicago, 1976, June 1, vol. 50, no. 11, pp. 54-57.

The Hebrew Home for the Aged, Riverdale, N.Y., began its four-phase plan of expansion and renovation in the 1950s. The first phase to be completed was the Goldfine Pavilion containing 120 beds for skilled nursing care and 22 beds for geriatrics in 1968. In phase two, the Pallisades Nursing Home was expanded to 348 beds and several areas of the old home were also renovated. The design of the new Pallisades Nursing Home is outlined. Bright colours and strong patterns are used throughout. Maximum use has been made of the terraced riverfront site on which the building is located. Two new technical improvements were introduced: a solid waste disposal system and a fire detection system consisting of smoke detectors and a sprinkler alarm system. The new building is built of steel rather than concrete. The final phase in the renovation of the old main building, which has a capacity of 150 beds, is nearly complete. A new roof together with exit stairs, windows, air-conditioning and sitting-rooms will maintain the appearance of the old building while giving it a modern interior. A day care scheme for the elderly in the community has also been established, which will tailor the services of the home to meet the individual's needs. The home also hopes to develop a living unit for the elderly.

1695. **Three hospital buildings in Athens.** *Architecture in Greece*, Athens, 1976, no. 10, pp. 224-228; summary in English, pp. 224-225.

Brief details are given of three hospitals designed, but not yet built: (i) a 600-bed long-stay hospital at Korydallos; (ii) a 300-bed accident and emergency hospital at Kifissia; and (iii) a 240-bed children's hospital at Maroussi. Plans and photographs of models are included. [This abstract has been prepared from an English summary of the paper.]

1696. **Private hospital buildings.** *Architecture in Greece*, Athens, 1976, no. 10, pp. 214-216; summary in English, p. 214.

Brief details are given, with plans, of two Greek private hospitals, the Lito Maternity Clinic and the 175-bed Athens Maternity and Gynaecology Institute. The authors also discuss the problems and advantages of designing private hospitals in Greece. [This abstract has been prepared from an English summary of the paper.]

GARDENS AND GROUNDS, PARKING

1697. **Ongoing landscaping program enhances hospital's community, patient relations.** *Hospitals*, Chicago, 1976, June 16, vol. 50, no. 12, pp. 35-36.

Lake Forest (Ill.) Hospital, has attempted to preserve the residential atmosphere of Lake Forest, a suburb of Chicago, by using small buildings in the Williamsburg colonial style or in contemporary style with colonial influence and using landscaping to blend the buildings in with their surroundings. The site provides a secluded environment for the hospital and helps foster good relationships between the hospital, patients, staff and visitors. The director of building services is in charge of maintaining the grounds and buildings. Contract maintenance is used for landscape design, tree care, spring cultivation, pruning, root feeding and regular horticultural inspections, but the hospital groundsmen mow, fertilize, spray and carry out routine maintenance. When new buildings are designed an estimated landscaping budget is included in the total construction cost. The primary consideration in the landscaping budget is to avoid high costs in order to avoid increasing the cost of patient care, consequently there are no flower beds or trees or shrubs to drop fruit, mowing strips have been placed along the edges and weed killer prevents growth under evergreens.

OTHER ASPECTS: EVALUATION OF BUILDINGS

1698. McLAUGHLIN, H. **Evaluating the effectiveness of innovative design for a community mental health center.** *Hospital & Community Psychiatry*, Washington, 1976, Aug., vol. 27, no. 8, pp. 566-571.

The effectiveness of the design of the in-patient and day patient areas of the Marin Community Health Center, San Rafael, Calif., was evaluated in 1969 soon after the centre was opened and in 1974. The centre is a two-storey structure sited on a steep wooded hillside near the entrance to the emergency department of Marin General Hospital. The focal area is a large, irregularly shaped communal space at the centre of

the triangular structure which extends into high-ceilinged corner areas that expand the space in the two treatment units. A wide encircling corridor ringed with bedrooms, multipurpose rooms and corridors opens off the communal space. The whole area is lit by high clerestories and large, floor-level windows. The building is of a non-determinate design to encourage different behaviour and varied use of space, producing an atmosphere of openness and physical freedom. In 1974 the evaluators found the design still worked well for the unit that still operated the type of treatment the centre was designed for — a therapeutic community. The design did not work as well in the second unit which had become a crisis intervention area for patients who were often highly agitated or suicidal; security and surveillance were major problems. More research is needed into post-occupancy evaluation of buildings.

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

1699. HUNT, E. L. **Building engineering services at the new Charing Cross Hospital (Fulham).** *Building Services Engineer*, London, 1976, May, vol. 44, no. 2, pp. 41-49.

The building and engineering services of the new Charing Cross Hospital [see *Hospital Abstracts*, Vol. 16, Abstract 12] are described. The 'racetrack' principle has been used with central cores housing kitchens, sluices and nurse stations as a result of using the high cruciform design. When the hospital is finally completed there will be three main service rings of engineering services, provided through walkways housing distribution mains for steam, condensate, water, fire, gas and electricity. The main sources of supply including boiler plant, steam distribution, electricity supply and distribution, water supplies, gas supplies and drainage are outlined. The internal systems comprise air-conditioning, ventilation, space heating, domestic hot and cold water supplies, sanitary services, general and special lighting, and general purpose power. Special services include special purpose rooms, distilled water, medical gases, incinerator and waste disposal, X-ray film conveyor, kitchen area, special equipment communications, lifts and escalators and lift controls. A schedule of the accommodation in the main cruciform block is included.

1700. MEHTA, J. C. **The development of hospital engineering in India.** *Hospital Engineering*, Stevenage, 1976, Aug./Sept., vol. 30, no. 19, pp. 12-17.

The Postgraduate Institute of Medical Education and Research, Chandigarh, India, is sited with the Nehru Hospital in a 1,000-bed teaching hospital complex. The campus (architects: Le Corbusier, P. L. Varma and M. N. Sharma) also has a 1,000-seat assembly hall, central cafeteria, administrative block, hostels and workshops. The hospital engineering and planning department is responsible for engineering services, estate management and new works. The engineering installations for the campus are divided into 13 major units for field activities. The specifications of the installations and maintenance policies are outlined under the various heads: (i) public health services, water supply to the campus, hot water supply, medical gas system, gas plant; (ii) electrical services, electric supply and distribution, standby generation of electricity, cable; (iii) air-conditioning and refrigeration services; (iv) laundry plant and linen

bank; (v) transportation and lift services; (vi) engineering workshop; (vii) civil engineering services; (viii) horticultural services; (ix) engineering stores; (x) capital works; (xi) estate management; (xii) training; (xiii) other administrative duties; and (xiv) operating manuals for technical services. This experimental reorganization of technical services under hospital engineers is the first to be carried out in an Indian government institution. The system has resulted in better maintenance of equipment, plant and buildings and improved communication.

EQUIPMENT, FITTINGS, FURNITURE

ELECTRONIC EQUIPMENT

See Abstract No. 1690

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract Nos. 1707-1709, 1821

STAFF MANAGEMENT

See Abstract No. 1719

STAFF TRAINING

See also Abstract Nos. 1710, 1714-1716, 1770

1701. KORSAK, A. **Hospitals have major role in health manpower education.** *Hospitals*, Chicago, 1976, June 1, vol. 50, no. 11, pp. 74-76, 79-80.

A survey conducted by the American Hospital Association in 1973 identified 114 occupational areas in which hospitals administered training programmes. The survey also indicated that training in these areas was carried on in 4,273 schemes administered by 1,739 hospitals. Each training scheme met four basic criteria: (i) it was of at least 36 hours duration; (ii) it followed a written course outline; (iii) it trained individuals for service in a new occupation or level; and (iv) the system had to be operational as of October 1973. The variables chosen for analysis included distribution of schemes by census division, number of beds, entry policy, frequency and national accreditation. The schemes were analysed. The research on health occupations training carried out by the American Hospital Association indicated the need for research in three main areas: (i) studies of health manpower staff working in the hospital; (ii) need to collect additional information relevant to the process of health occupations training; and (iii) the need to determine with greater clarity the patterns of job mobility of the various occupations included under the category 'health manpower'.

1702. POURCELOT, M. La formation professionnelle continue dans le cadre de l'éducation permanente à l'hôpital public. **[In-service training in the framework of on-going education in the public hospital.]** *Revue Hospitalière de France*, Paris, 1976, June/July, vol. 40, no. 292, pp. 913, 915-918, 920-923.

French employers are legally obliged to spend a sum amounting to not more than one per cent of their total wage and salary bill on on-going education. From the point of view of hospital staff, this is an enormous task and the French Federation of Hospital Employees' Unions therefore established, in 1974, a national association for the organization of continuous education for hospital staff with the aim of ensuring that the latter receive further training and education in accordance with the objectives decreed by the State. The structure of this association is described.

1703. RICHARDSON, W. C. **Management education for health services.** *International Journal of Health Services*, New York, 1976, vol. 6, no. 1, pp. 25-34.

The implications of the recent emergence in the United States of three major factors for management education in the health services are examined. The factors are: (i) more complex organizations for delivering health services; (ii) increased public accountability; and (iii) development of co-ordinating agencies monitoring the services provided. The implications for professional education are examined in the light of these developments, together with the degree of integration in the curriculum and the content appropriate for the range of careers envisaged. It is argued that formal education for health services management should place substantial emphasis on the development of a student's analytical skills with particular reference to quantitative methods. Technical skills provide the manager with the ability to identify courses of action which will benefit the organization. In teaching quantitative methods, courses should be oriented towards the manager and not the specialist, although it is necessary to give sufficient depth to the subject so that the future manager has more than a conversational knowledge of the subject.

1704. OWEN, J. W. and DRAPER, F. W. **Management education, training and development: a health district perspective.** *Hospital and Health Services Review*, London, 1976, Sept., vol. 72, no. 9, pp. 301-303.

St. Thomas' Health District (Teaching), London, has established its own management education scheme. The concept of functional management is used within the district with the benefits of increased effectiveness through increasing specialization, uniform standards of operation and greater operational control through directive management. Functions are divided into two broad categories: line management and joint planning, liaison and co-ordination of services, and these are reflected in the organization of the administrative structure. The training needs arising from functional management are outlined. An initial training scheme was established with five main stages: (i) identification of development needs; (ii) preparation of material; (iii) 10 management seminars attended by all participants; (iv) halfway through the course participants carried out an exercise aimed at improving performance or service in an area for which they were responsible; and (v) after the course, participants, in multidisciplinary teams, tackled problems in the district as well as doing their regular work. The results of the scheme are: potential savings of £25,000 a year; managers are more aware of the importance of management development; and improved communications.

The training scheme has been expanded to an in-house management development programme and this, coupled with external courses, provides a powerful tool for the education, training and development of managers.

STAFF WELFARE

See also Abstract No. 1751

1705. LUNN, J. A. **Protection of health service staff.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 576-579.

The practical problems involved in immunizing hospital staff are discussed, as well as the changing priorities for protection as a result of a changing incidence of infectious disease. The problems of smallpox, poliomyelitis, tuberculosis, X-rays, rubella, tetanus, diphtheria, influenza and serum hepatitis are considered. Some skin problems are discussed with a view to improving protection for staff at risk. The cost and value of routine stool testing of catering workers is discussed, and the point raised that the money could be more effectively spent in improving hygiene and working facilities in many hospital catering departments.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 1703

1706. BAUNACH, and others. Die Aufgaben des Medizinischen Dokumentationsassistenten (MDA) im Krankenhaus. **[The duties of the medical documentation assistant (MDA) in the hospital.]** *Krankenhaus Umschau*, Kulmbach, 1976, Aug., vol. 45, no. 8, pp. 570, 573-574.

The increasing use of information systems in hospitals and scientific institutions requires specially trained staff, and the universities of Ulm and Giessen now provide full-time courses leading to the qualification of medical documentation assistant (MDA). While most qualified MDAs have so far obtained posts in scientific institutions and in the pharmaceutical industry there is an increasing demand for their services in hospitals. The course of study extends over three years (two of theory and one of practical experience). The subjects covered are medicine, documentation, mathematics and statistics, data processing, and organization (including hospital administration, law, the medical profession, and office work).

MEDICAL STAFF

See also Abstract No. 1808

1707. ASHLEY, J. S. A. and COLLINGWOOD, J. **Urological services: an assessment combining the views of urologists with epidemiological factors.** *Health Trends*, London, 1976, Aug., vol. 8, no. 4, pp. 69-72.

National statistics provide an overall view of the urological work load and of the

manpower and facilities currently available, but are inadequate for future planning. With the object of obtaining supplementary information two surveys were undertaken: a field study of urological incidence and a postal questionnaire sent to urologists. The field study in the County of Avon yielded 2,152 cases, an annual rate of 4.75 persons seen per 1,000 population. Two main features emerged from the answers to the questionnaire: (i) most urologists would prefer to be responsible for a much larger proportion of most genito-urinary conditions than at present; and (ii) there is a genuine desire to use day case facilities instead of hospital beds wherever possible. From the data obtained it is calculated that instead of the present 100 or so urologists in Great Britain a total of 310 would be needed, or nearer 350 taking teaching commitments into consideration. The number of urology beds would have to be increased from 3,000 to about 6,000 or 0.11 beds per 1,000 population. If the consultants worked in pairs as has been suggested, urology units could only be provided at area and not at district level.

NURSING STAFF

See also Abstract Nos. 1821, 1828

1708. CROMPTON, H. M., MITCHELL, H. and CAMERON, J. McL. **The Aberdeen formula.** *Nursing Times*, London, 1976, Aug. 26, vol. 72, no. 34, occasional papers, pp. 121-124; Sept. 2, vol. 72, no. 35, occasional papers, pp. 125-128.

The Aberdeen formula is widely used in Scotland for estimating nursing staffing requirements in non-psychiatric hospitals. The duties are classified and allocated to various grades of nursing staff, according to four codes: (A) grade normally expected to do the duty; (B) grade who could do the duty; (C) grade who should not normally do the duty; and (D) grade who should never do the duty. A formula for the calculation of staffing is outlined, and the calculation and working of the method discussed. A supplementary exercise to estimating staff requirements based on the Aberdeen formula has been the identification of the number of 'learners' it was possible to train with the clinical facilities and staffing levels available and the separation of funding for students into a sub-head of the financial allocation for the nursing establishment.

1709. CLARK, B. B. and LAMONT, G. X. **Accurate census forecasting leads to cost containment.** *Hospitals*, Chicago, 1976, June 1, vol. 50, no. 11, pp. 43-48.

A six-month analysis of the work load in eight medical-surgical nursing units of New Britain (Conn.) General Hospital, revealed that two primary factors influenced nursing unit work loads: the census of patients attending throughout the year; and the mix of self-care, partial care and complete care patients. A census forecasting model indicating how long fluctuations in demand would last so that appropriate planning steps could be taken was established to project the census of the eight medical-surgical units for each day of the fiscal year. Seven basic steps were involved: (i) provide minimum of five years' census data in a format for comparison; (ii) identify events that have affected the census; (iii) classify census variations and events into time zones within which the census maintained a consistent pattern before changing; (iv) evaluate the historical census trends for possible re-occurrences; (v) project the potential future impact; (vi) establish a maximum/minimum census for each day; and (vii) determine the census forecasts by nursing unit. A formal plan based on the census fluctuation

planning principle was established to reduce staff replacement time and the expense of overtime. The problems involved in planning holidays and closing selected units are outlined. The results indicated that the use of census forecasting in nursing units resulted in savings in costs and staff time and more effective bed use.

1710. BOWMAN, M. **The curriculum and the staff.** *Nursing Mirror*, Sutton, Surrey, 1976, Sept. 9, vol. 143, no. 11, pp. 66-68.

The changing standards of nurse training are considered. The curriculum is defined as the total of all teaching, together with related strategies and techniques. New teaching staff should recognize: (i) the nature of the curriculum; (ii) the global aims; (iii) the behaviour objectives; (iv) the content—choice and organization; (v) teaching methods; (vi) curriculum integration or objectives; (vii) methods of assessment/examination; and (viii) methods of evaluation. In order to achieve objectives of the variety pursued in modern education, the curriculum must be broken down into 'courses'. Lines of approach are analysed, together with the teaching methods, methods of assessment and the importance of feedback. The need is considered for the teacher to be aware of his students and their previous knowledge, experience, environment and psychological pressures, since variations in such factors will alter their responses to learning.

1711. SCHURR, M. C. **The role of the nursing officer what is it?** *Nursing Mirror*, Sutton, Surrey, 1976, Aug. 26, vol. 143, no. 9, pp. 59-60.

The role of the nursing officer is considered, and the duties and responsibilities outlined. Problems concerning the nursing officer's work are: (i) sisters do not apply for nursing officer posts readily as they believe they will no longer be in contact with patient care; (ii) the role of the nursing officer does not meet the needs of the organization; and (iii) the administrative content of the work can be irksome. Possible causes for the situation are suggested. The Central District (Teaching), Sheffield Area Health Authority, has established as a result of the findings of two 'workshops': (i) a realistic job description, identifying the needs of the nursing officer for management training; and (ii) a yearly training programme of 10 modules for nursing officers, which is outlined. The new job description gives nursing officers an opportunity to change the emphasis of their job and find the satisfaction they are looking for through contact with patients.

1712. JUDD, S. L. and others. **The changing role of nurses in the management of diabetes.** *British Journal of Hospital Medicine*, London, 1976, Sept., vol. 16, no. 3, pp. 251-253, 255.

St. Thomas's Hospital, London, has investigated to what extent specialist nurses can improve the delivery of health care to diabetic patients, either in the hospital or in the community. Specialist nurses work as part of a diabetic team consisting of all grades of hospital medical staff within the hospital and general practitioners and district health staff within the community. The care in the hospital is outlined: clinic visits, the education of patients, the need for telephone contact, possible problems, ward treatment, staff education and home care after discharge, together with pregnancy and labour in diabetic patients. Communication in a large hospital between staff is sometimes difficult, but the specialist nurse can contribute significantly towards improving

communications. Care in the community is considered under the various heads: education, new diabetics, changing insulin requirements, the pregnant diabetic, diabetic complications and possible drawbacks. The experiment has been a success, and district nurses as specialists often gain the close confidence of patients who are unable to relax in a clinic. They also provide continuous education for patients and the non-specialist community nurses.

1713. BRODY, S. J. and others. **The geriatric nurse practitioner: a new medical resource in the skilled nursing home.** *Journal of Chronic Diseases*, Oxford, 1976, Aug., vol. 29, no. 8, pp. 537-543.

The Penn Urban Health Services Center (Penn-Urb) of the University of Pennsylvania offers an alternative method for educating health service professionals whilst serving as a laboratory for education and research in a health care system. A study to define, implement and evaluate the role of the nurse practitioner in a nursing home setting was carried out by the centre using the nurse practitioner model. The records of patients of a 131-bed nursing home were examined; traditional care was given to a control group of 58 residents on an episodic basis by doctors while 60 patients were treated by the centre using for one-fifth of the time the services of a doctor plus a full-time nurse practitioner. Evaluation was carried out through examination of the medical records. The results indicated that medical care was of a higher quality when delivered by the doctor/nurse practitioner team, and that the centre team was also more aware of social and functional problems. The lack of follow-up was common to both groups. The implications of using process evaluation are considered. The study suggests that more emphasis should be placed on the significance of psycho-social needs of residential patients in nurse practitioner training to complement their training experience in medical models.

1714. CORMACK, D. **Psychiatric nursing in the USA.** *Journal of Advanced Nursing*, Oxford, 1976, Sept., vol. 1, no. 5, pp. 399-409.

An eight-week study tour of psychiatric institutions and related nurse teaching establishments in the United States carried out during September and October 1975 is described. Three major types of health care facility were visited: state hospitals, Veterans Administration hospitals, and private hospitals. The aim of the visit was to observe psychiatric nursing practice in the United States and to use the knowledge to understand the function and potential of the psychiatric nurse in the United Kingdom. The physical and organizational structure of the various institutions are outlined. Registered nurse training in the United States is of a generalist nature based on a modular system of education including medical, psychiatric, surgical, community and maternity nursing. Three specific aspects of nursing activity are considered: nurse teaching and training, problem-oriented nursing care records and utilization reviews. The possible implementation of each system in the United Kingdom is discussed.

1715. SIMS, A. **Teachers of nursing in the United Kingdom: some characteristics of teachers and their jobs.** *Journal of Advanced Nursing*, Oxford, 1976, Sept., vol. 1, no. 5, pp. 377-389.

A survey of registered nurse teachers in the United Kingdom was carried out in order to: (i) describe the general characteristics of the group; (ii) discover if and where

teachers were currently working; and (iii) elicit and describe their opinions as to the satisfactions and dissatisfactions of their jobs. A total of 2,923 completed questionnaires was returned representing a 69 per cent response rate. The report describes the findings of the study and the characteristics of the two main groups of respondent; those working in schools of nursing and those working elsewhere. Factors linked to their satisfaction and dissatisfaction are discussed. A copy of the questionnaire is included in the paper.

1716. WATSON, M. W. **New perspectives for nurse teachers.** *Nursing Times*, London, 1976, Sept. 16, vol. 72, no. 37, occasional papers, pp. 133-135.

Proposed developments in nurse teacher preparation in the University of London Department of Extra Mural Studies are outlined. A working party was set up to revise the present regulations and syllabuses for the Sister Tutors' Diploma as a suitable qualification for tutors of nurses both in the hospital and community and to submit a report with recommendations. A survey to obtain background information on holders of the Tutors' Diploma revealed that over 68 per cent spent less than one-eighth of their time in any clinical situation and only 58 per cent taught nursing theory and 43 per cent taught nursing practice. Developments in the progression towards a master's degree are established and the basic revised diploma course outlined. Other educational studies for teachers of nurses are discussed and some suggestions made about a pattern of preparation for senior nurse education.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract No. 1770

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1703, 1704, 1711, 1778

1717. MOSELEY, S. K. and GRIMES, R. M. **The organization of effective hospitals.** *Health Care Management Review*, Germantown, Md., 1976, vol. 1, no. 3, pp. 13-23.

Hospital administrators may find it difficult to decide whether to retain the traditional, rigid organizational structure or to adopt the more fluid structure now being advocated. An extensive search of the literature revealed 30 measures of hospital performance that have been suggested as measures of effectiveness. Using the Delphi technique, 28 experts reviewed and weighted these measures to develop an index of effectiveness for application in a hospital. The formula from which the index is derived is presented in a technical appendix. The index was tested in a sample of 32 hospitals in the Houston area. The results of the study are presented in two diagrams, patient care and administrative, and discussed. They indicate that the most important aspects of high performance seem to be specialization and co-ordination with regard to patient care and a relatively high degree of division of activities into department roles, functions and tasks, and an advanced degree of formality and a greater use of specific co-ordinating committees with regard to administration.

1718. GOODWIN, P. **Bring planning into the management function.** *Hospital Financial Management*, Chicago, 1976, June, vol. 30, no. 6, pp. 24-25, 28, 30, 32.

Hillcrest Medical Center, Tulsa, Okla., has developed its own philosophy for the role of institutional planning within the management structure. The planning/management scheme is outlined and examined under seven specific heads: (i) philosophy and objectives; (ii) goal (management by objectives) scheme; (iii) budgeting scheme conducted after establishing the goals each year; (iv) wage and salary scheme; (v) accountability management scheme; (vi) quarterly reporting system; and (vii) planning aids and techniques. The scheme is not an attempt to establish a model for all institutions to follow, but it offers a framework within which managers can examine their own management/planning systems.

1719. CROWDER, D. M. and BENNETT, A. C. **Total commitment to goals is secret of hospital's success.** *Hospitals*, Chicago, 1976, July 1, vol. 50, no. 13, pp. 104, 106, 108-109.

The Donald N. Sharp Memorial Community Hospital, San Diego, Calif., has a clear commitment to two principles: (i) the concept of evaluating accomplishments in terms of planned outcomes which is used at all levels of organization; and (ii) the setting of objectives and planning of actions should reflect the consensus of thinking of those members of the section who will be involved in achieving the objectives. The administrative staff have recently had four goals: (i) integration of horizontally related objectives; (ii) the participation of the medical staff in the hospital's goal/budget system; (iii) strengthen the results-oriented features of departmental objectives; and (iv) increase the contribution made by staff administration, training and management. A new management appraisal system designed to meet two main objectives has been established: (i) to evaluate the performance of all managers on the basis of objective setting; and (ii) to have the evaluation of all managers conducted by the individual to whom they directly report. This concept of performance evaluation will be extended to non-management levels of the organization. The purpose of the new performance evaluation is to obtain a record of job responsibilities, standards and objectives; evaluate job performance; and to plan for training and development of the employee. The hospital is fully committed to these analyses, and the hospital's efforts to upgrade the managerial competence are closely monitored throughout the year.

1720. TAKEMI, T. **How to think about hospital management.** *Asian Medical Journal*, Tokyo, 1976, April, vol. 19, no. 4, pp. 237-246.

The science of hospital management in Japan is outlined and the concepts of internal and external management discussed. The background of the patient is analysed by: (i) heredity; (ii) family relationship; (iii) community characteristics; (iv) work environment; and (v) mental attitudes. The importance of selecting community information to correlate with medical information is outlined. The community characteristics of: (i) survival pattern; (ii) survival resources; (iii) life pattern; and (iv) family structure and characteristics, are outlined. Follow-up studies of patients are essential features of social health management, and aspects to be considered are: (i) counselling; (ii) family attitudes; (iii) adaptability; and (iv) areas determined on the basis of data about the patient when in hospital. Medical social welfare must be linked to all aspects of hospital management.

ECONOMICS OF HOSPITAL MANAGEMENT

See Abstract Nos. 1775, 1779

RUNNING COSTS

See also Abstract Nos. 1773, 1783

1721. BEHRMANN, W. Steigerung der Krankenhauskosten—ein internationales Problem. **[Increasing hospital costs—an international problem.]** *Krankenhaus Umschau*, Kulmbach, 1976, Aug., vol. 45, no. 8, pp. 566-569.

The author produces figures to show the great increase in health service, and particularly hospital, costs over recent years in all industrial countries but with particular reference to Western Germany. If costs are to be kept within reasonable bounds the only alternatives are a reduction in services or reforms and rationalization. The former would be unacceptable and therefore a number of proposals to implement the latter alternative in Western Germany are put forward. These include: convalescence and the care of patients not requiring a full hospital service should make use of such facilities as hostels and day/night hospitals; less sharp division between out-patient and in-patient care to reduce length of stay (e.g. pre-admission diagnostic tests, out-patient after-care); regional organization, without regard to *Land* and local authority boundaries, with central bed bureaus; and rationalization aiming at the greatest possible efficiency should be a constant and urgent priority for both hospital authorities and hospital staff.

1722. POELS, A. T. J. Het beheersingsvraagstuk in de gezondheidszorg: een schematische benadering. **[Administrative problems in health care: a summary outline.]** *Ziekenhuis*, Utrecht, 1976, Aug. 18, vol. 6, no. 16, pp. 422-430.

This paper examines various levels at which costs are decided, from the patient's primary visit to his general practitioner to secondary and further referment to specialists and other disciplines. Assessments of patients' requirements, differing medical practices, areas in which costs might be reduced, available capacity for treatment, effectiveness and efficiency, payment systems for specialists, hospital organization and tariffs, redistribution of beds, working hours and staff, budgeting and cost decisions at certain points, are discussed. Decision procedures are not always clear and the attitudes of decision-makers vary. Introduction of norms for decision-making based on the efficient use of capacity and manpower are suggested. Fixed and investment expenses take a relatively high proportion of the total costs package. A reduction in demand for intramural health care can only affect costs if it is sufficiently large and permanent. The continuing character of health care is an impending factor for cost reduction. If a regular evaluation shows that no further reductions can be expected from more efficient organization, reductions in size and quality of services may be considered. This should include re-examination of demand.

1723. L'hôpital public coûte-t-il plus cher que les cliniques privées? **[Does the public hospital cost more than private clinics?]** *Revue Hospitalière de France*, Paris, 1976, June/July, vol. 40, no. 292, pp. 897-912.

With the help of a series of 10 tables of statistics, the author refutes the claim of the

Federation of Private Commercial Clinics that a patient pays substantially more for treatment in a public hospital than in a private clinic. The average cost of a day's stay in a clinic is shown to be 332 French francs, while the equivalent charge in a university hospital is 349 francs. The difference between the two figures can be explained by the fact that the university hospital is obliged to provide emergency services, to teach, and to carry out research.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract No. 1709

1724. GLASS, R. I. and WEINER, M. S. **Seeking a social disposition for the medical patient: CAAST, a simple and objective clinical index.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 637-641.

An index for the rapid identification on admission of patients at high risk of becoming disposition problems was developed. The index is based on the status of a patient's continence, ambulation, age, social background, and thought processes (CAAST). One hundred and seven consecutive patients admitted to the medical service of the City Hospital Center, Elmhurst, N.Y., were evaluated on admission and followed until discharge. The high CAAST groups were found to have significantly increased mortality and longer than average social stays. A high CAAST score should alert the physician to seek earlier help from social services in achieving a more appropriate disposition for the patient. The survey indicates the large proportion of time spent on acute medical wards, while awaiting social disposition. In view of the high cost of in-patient care there is a need to move high CAAST patients into less costly and more appropriate intermediate care wards.

1725. HOLLOWAY, D. C. and others. **Development of hospital levels of care criteria.** *Health Care Management Review*, Germantown, Md., 1976, vol. 1, no. 3, pp. 61-72.

Model sets of criteria exist for application to utilization review in acute care hospitals, but they do not accommodate a judgment regarding whether a patient should be in an acute care hospital, skilled nursing facility or treated through home care services. This paper demonstrates that a modification of the nominal group/Delphi technique can be applied to the problem of developing among physicians levels-of-care criteria for use in concurrent review activities. Utilization review requirements can be rationalized through a process that uses physicians' scarce time effectively, allows for cyclical feedback on their peers' views, and insures input from both dominant and reticent individuals.

1726. RESTUCCIA, J. D. and HOLLOWAY, D. C. **Barriers to appropriate utilization of an acute facility.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 559-573.

A study to identify and measure the significance of factors leading to the misuse of beds at Herrick Memorial Hospital, Berkeley, Calif., was carried out, using Medicare levels of care criteria. A utilization review nurse co-ordinator determined the appropriate location for a sample of 218 patients. Approximately 10 per cent of the 1,902

patient days were judged inappropriate at a hospital level of care. The most significant barriers to use were: (i) lack of skilled nursing facilities; and (ii) conservative care of the patient by the doctor. The implications and methods of eliminating these barriers are discussed. Suggested remedies include: expanded role for social services and discharge planning; education of doctors and patients; improved communication between departments; and the establishment of a hospital-based skilled nursing facility.

1727. WARNER, D. M. **Estimating patient discharge from hospitals using both historical and physician-supplied estimates combined in a cost/accuracy analysis.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 590-602.

The effectiveness of admission scheduling systems for optimal resource allocation is directly dependent on the ability to estimate patient discharges accurately. A model derived from a cost/benefit (or cost/accuracy) concept is used to argue that an optimal balance exists between historically-based estimates and physician-supplied estimates. Data from a 300-bed hospital in Michigan are analysed to provide the parameters for the model. The discharge estimating model was designed to be an integral part of an admission scheduling system recently implemented in the study hospital. Results of the discharge estimating model and its role in admission scheduling are discussed.

1728. SCHMITZ, H. H. and SCHOENHARD, W. C. **Automated utilization review is timely, accurate, efficient.** *Hospital Progress*, St. Louis, 1976, July, vol. 57, no. 7, pp. 73-77, 98.

Federal utilization review regulations require hospitals to establish admission and extended stay certification processes and conduct medical care evaluation studies. Deaconess Hospital, St. Louis, Mo., uses a computerized review system which fulfils these demands and generates four types of data: (i) lists of patients requiring certification by the attending doctor; (ii) admission certificates; (iii) extended stay certificates; and (iv) statistics generated as a by-product of the entire review system. The system is analysed. Evaluation of the scheme reveals that utilization review has been carried out at lower operating costs than originally anticipated, as a result of almost total automation. The system is streamlined and staff costs are minimal. The results are consistently accurate and rapidly produced.

1729. FERGUSON, C., LEE, M. L. and WALLACE, R. **Effects of Medicare on hospital use: a disease-specific study.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 574-589.

A study was carried out to determine: (i) the effects of Medicare on the patterns of hospital use in specific disease groups; and (ii) the sensitivity of length of stay and proportions of admission in specific disease groups to 'short run' changes in hospital occupancy rates. The analysis was based on patient discharge information for a group of Missouri hospitals which have been reporting information on diagnosis, length of stay, age, sex, race, and method of payment for individual patients to the State Division of Health since 1963. The results indicate that Medicare increased the use of hospital services by patients of 65 and over. The largest increases occurred in the lower risk disease categories. The results also indicate a difference among various socio-economic groups. Medicare had a greater impact on the 75 and over age group than on the 65 to 74 age group.

APPOINTMENT SYSTEMS, WAITING LISTS

See Abstract No. 1766

DATA PROCESSING

See also Abstract Nos. 1706, 1733, 1779, 1787, 1788, 1815, 1816

1730. ALDERSON, M. **Hospital Activity Analysis and health information systems.** *Health Trends*, London, 1976, Aug., vol. 8, no. 4, pp. 66-68.

A health information system (HIS) is a mechanism for the collecting, processing, analysing and transmitting of information. One source of data in Great Britain is the Hospital Activity Analysis which is about patients in hospital. The main objective of HIS is to help in the delivery of health care and the planning of facilities for the next generation. Rather different sets of data are required to carry out these two functions; these are detailed. There is also a need to predict changes in the ways of delivering medical care and advances in medical technology. Problems of HIS include completeness of data, confidentiality and making a system acceptable to the user. Developments towards an HIS are outlined. There are five basic steps in setting up a model system: (i) examination of the resources for the system; (ii) review of the problems faced by all levels of management; (iii) detailed study of present use of information; (iv) consideration of ways of improving the present use of information; and (v) consideration of the need to extend collection of routine or ad hoc information. Some suggestions are made for future action.

1731. MILLS, R. and others. **AUTOGRP: an interactive computer system for the analysis of health care data.** *Medical Care*, Philadelphia, 1976, July, vol. 14, no. 7, pp. 603-615.

AUTOGRP is an interactive computer system designed to facilitate rapid analysis of complex medical information. It allows the clinical or administrative skills of the user to be combined with sophisticated computer techniques to permit rapid information retrieval, hypothesis testing, development of norms, and identification of deviant cases. Results are of a high statistical and medical quality. Tasks which were formerly avoided because of the time, effort and expense, are now feasible as they can be accomplished economically. The system is embedded in an extensible computer language (CML) and new capabilities are being added. Any user familiar with CML can make his own extensions to the system. AUTOGRP has been used to help in the understanding of health care management in a variety of settings, to improve decision making from medical and management aspects.

LIBRARIES

1732. SCHNALL, J. G. and WILSON, J. W. **Evaluation of a clinical medical librarianship program at a university health sciences library.** *Bulletin of the Medical Library Association*, Chicago, 1976, July, vol. 64, no. 3, pp. 278-281.

The University of Washington Health Sciences Library established an eight-month experimental clinical medical librarianship scheme to determine the benefits of such a service to patient care and the education of the recipients. The replies to a questionnaire

revealed acceptance of the scheme; 100 per cent of the neonatal intensive care unit staff and 93 per cent of orthopaedic staff to whom it was provided wanted the literature service continued. Guidelines were developed to be used by a librarian who has other library responsibilities yet wishes to provide a limited clinical medical librarianship service: (i) ascertain which departments are most interested in such a service; (ii) the clinical medical librarian does not have to be present on all rounds each week; (iii) the librarian should be accessible by telephone full-time in the library; (iv) distribute a letter describing the scheme and including the telephone number of the librarian; (v) send copies of relevant articles to staff quickly so that the scheme will be of maximum use; (vi) maintain a file to avoid duplication of work; (vii) an assistant is required to file, keep statistics and photocopy; and (viii) demonstrations of Medline and computer data bases, lectures on literature sources and tours of the library should be given to the departments served.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract Nos. 1776, 1780

MEDICAL RECORDS

See also Abstract Nos. 1731, 1816

1733. KOWITT, J. P. and RUDOW, B. J. **Computer printout on microfiche speeds record keeping, retrieval.** *Hospitals*, Chicago, 1976, June 1, vol. 50, no. 11, pp. 81-83.

Mount Sinai Hospital, New York City, N.Y., has implemented a computer output on microfilm (COM) system to reduce the space needed for storing medical records and to improve the retrieval of information. Most of the hospital's files are generated in the data processing department where high-speed impact printers produce up to 1,100 lines per minute. COM has freed much computer printer time and the information can be easily stored for quick retrieval. The system is outlined. The immediate impact of the new method was felt in the data processing department where information is now put on to microfiche at tape writing speeds 50 times faster than printout speeds. The department currently produces microfiche for: patient accounting, payroll, staff, accounts payable and the patient master index. The training for the staff of the admissions and out-patient departments is described, together with possible future applications.

1734. BACH, M. Das Microfilm-Krankenblatt-Archiv. **[The microfilm-patient record archives.]** *Krankenhaus*, Stuttgart, 1976, July, vol. 68, no. 7, pp. 237-241.

Since in Western Germany hospitals have to retain medical records for 30 years, space and staff requirements for filing and retrieving are costly. Costs can be reduced, and space saved, by microfilming. For most hospitals it is cheaper, as well as more efficient, to microfilm by service contract since the contractor takes over the planning of the storage system, instruction of hospital staff, and maintenance of apparatus in addition to the filming. The space saved can vary between 50 and 90 per cent: the Tecomotor storage system needs only 2.6 sq.m. to file about 300,000 records. When microfilming is first introduced it is advisable to start by filming the records of the past

five years leaving earlier ones to be done later. With a contract service records cannot be filmed during their first year's currency. The paper includes interviews with the administrators of four hospitals which have adopted microfilming of medical records.

HOSPITAL STATISTICS

See Abstract Nos. 1730, 1818

HOSPITAL ACCREDITATION AND SIMILAR SCHEMES

See Abstract No. 1819

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See Abstract No. 1812

FINANCE AND ACCOUNTING

1735. CAMENEN, F.-X. and others. **L'assurance maladie et l'hôpital public. [Health insurance and the public hospital.]** *Revue Hospitalière de France*, Paris, 1976, June/July, vol. 40, no. 292, pp. 845-848, 850-862, 864-868, 869-879, 882-896.

This report, produced by a group of students at the National School of Administration, considers in depth the financial and practical relationships between the public hospitals, the national health service, and the health insurance schemes in France. The health insurance organizations reimburse the hospitals for treatment received by their members, and also finance the purchase of hospital equipment by means of interest-free loans. They have, however, no voice in determining the charges made by the public hospitals and cannot really check their efficiency. The financing of expansion and re-equipment of the public hospitals, on the other hand, comes from a variety of sources—as grants from local authorities and the State and as loans from the health insurance organizations and other bodies. This is also unsatisfactory. After a detailed examination of a series of proposals for improvements in these fields, the authors of the report suggest reform of the method of fixing hospital charges, simplification of the system of reimbursement, establishment of a national hospital equipment fund, and a new administrative framework to incorporate these changes.

FINANCE

See also Abstract Nos. 1721, 1729

1736. COLES, J., DAVISON, A. and WICKINGS, I. **Allocating budgets to wards: an experiment.** *Hospital and Health Services Review*, London, 1976, Sept., vol. 72, no. 9, pp. 309-312.

A group of ward teams at Westminster Hospital who routinely commit expenditure

on the care of in-patients were given the opportunity to change their previous pattern of resource commitment given three conditions which had to be accepted for 12 months [see *Hospital Abstracts*, Vol. 15, Abstract 66]. They had to: (i) receive a financial and statistical information service covering their firm's activities; (ii) they met regularly as a multidisciplinary team to review their policies; and (iii) they were free to redistribute resources within an overall budget fixed flexibly to the number of patients treated. Two groups of seven wards within Westminster Hospital, matched for work load, case-mix and expenditure, were used as the experimental group and control group. The findings on attitudes and participation, work loads, resource switching, and financial significance were analysed. The results indicated that, in the short term, acceptable budgets can be designed for clinical teams to use and that they affect the behaviour of doctors, nurses and others. The significance of clinical budgets coming in to use could be: (i) increased discussion about how much of the total budget should be used; and (ii) it would become easier to see which districts achieved the most clinically effective use of the similar resources made to them.

1737. GILBERT, R. N. **Four-step capital budgeting.** *Hospital Financial Management*, Chicago, 1976, June, vol. 30, no. 6, pp. 48-52, 54, 56-58.

Capital budgeting systems for hospitals have now become mandatory to prevent the use of federal funds to support unjustified expenditure. Under such conditions a capital budget is a necessary and useful tool to assist in the allocation of capital resources. A four-stage approach to capital budgeting is outlined: (i) description process; (ii) verification process; (iii) evaluation process; and (iv) decision process. Hospital capital expenditures are grouped into three categories: small, intermediate and large, and the four-stage approach applied. A state of the plant report is prepared at the end of the capital budgeting process which provides information and brings capital demand and capital supply into perspective. Capital budgeting techniques make clinical and non-clinical capital demands as explicit as possible and help management satisfy the demand in a systematic and objective manner.

1738. SALKEVER, D. S. and BICE, T. W. **The impact of certificate-of-need controls on hospital investment.** *Health and Society*, New York, 1976, vol. 54, no. 2, pp. 185-214.

Certificate-of-need (CON) controls over hospital investment have been brought out by a number of states in the United States in recent years. Several types of financial controls have been applied and the quantitative aspects of such controls are analysed. Estimates reveal that CON did not reduce the total dollar volume of investment but altered its composition, slowing expansion in the number of beds but increasing investment in new services and equipment. These results may be due to: (i) the emphasis in CON laws and the schemes for controlling bed complements; and (ii) a substitution of new services and equipment for additional beds in response to financial factors and organizational pressures for expansion. Implications for future research and policies are considered. CON schemes should not be made more effective by tightening and extending existing controls to cover all types of movement projects; the resources required may exceed the costs of investment projects being reviewed. Further research into CON is needed to obtain a more complete understanding of direct and indirect effects of existing and proposed CON schemes.

SUPPLIES AND STORES

SUPPLIES

1739. CARR, R. and SANGSTER, J. A. **An introduction to capital equipping.** *Nursing Times*, London, 1976, Aug. 19, vol. 72, no. 33, pp. 1290-1291.

An outline of the process of providing capital equipment for health service buildings is presented. Capital equipment covers all equipment required to bring a new building or newly-acquired building into use and includes both technical and non-technical items. Equipment should be classified according to its impact on planning and design. The main stages in equipping are: (i) studying and consulting; (ii) specifying and listing; (iii) consolidating, final selection, costing and approving; (iv) ordering, receiving and checking; and (v) storing and distributing. Schedules of equipment can be compiled manually, but a computer system for the scheduling and cost control of equipment has been developed by the Department of Health and Social Security (DHSS). The output of the basic system consists of: an item catalogue; room catalogue; room library; and consolidated list. The role of the supplies officer is discussed. The DHSS issues guidance material at frequent intervals and also gives scientific and technical advice on specialist equipment to the supplies officer, when required. A good working relationship with the supplies officer together with an appreciation of the problems common to both disciplines can ensure that nurses have a valuable source of information.

PURCHASING

See Abstract No. 1768

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1740. HARRIS, R. J. and ADAM, E. E. **Forecasting patient tray census for hospital food service.** *Health Services Research*, Chicago, 1975, vol. 10, no. 4, pp. 384-393.

Five computerized forecasting models were tested with data on the daily patient tray demand in a large medical centre: simple (first-order) exponential smoothing; double exponential smoothing; adaptive exponential smoothing; simple moving average; and moving-average regression. The results were compared with intuitive forecasts made by the catering supervisor. All five models gave more accurate results than the intuitive procedure: an adaptive exponential-smoothing model was most accurate. The effects of model complexity and data storage requirements are discussed, and simple exponential smoothing is suggested for forecasting patient tray demand in this setting.

1741. Lukas Ziekenhuis te Apeldoorn: personeelsleden krijgen ontbijt c.q. broodmaaltijd via automaat. **[Lukas Hospital, Apeldoorn: staff can get breakfast and snacks from automat.]** *Voeding- en Huishoudgids*, Amsterdam, 1976, Aug. 23, vol. 43, no. 523, pp. 364-367, 369.

The 140-seat, third floor restaurant of the 450-bed Lukas Hospital, Apeldoorn, has on one wall a range of food vending machines including a magnetronic oven, from which snacks, sandwiches and hot and cold drinks are available for its 700 staff, ambulant patients and visitors. Preparation during the day, cool-storage in the restaurant and refilling at 2000 hours ensure a 24-hour service. Hot main meals are served at midday from the central kitchen. Orders, with a choice of one alternative for each food component, are collected and coded by catering staff. The meals are conveyed to the departments and restaurant via the hospital's general transport system in trolleys containing 40 meals at a time, each meal individually laid out on a heat-retaining plate with cover ('Vari-Serv' system). The kitchen employs 23 staff and the restaurant four full-time and two part-time staff. Snacks, coffee and tea are prepared in the central kitchen, with the exception of some ready-packed foods, and served from ward kitchens or restaurant. Washing-up is carried out centrally using a conveyor belt with pre-rinse and air-drying system. The paper includes floor plans of restaurant and kitchen plus 11 photographs.

1742. WINK, A., SCHAARS, H. J. and DIJL, P. W. van. Keukens en maaltijdverstrekking bij verschillende vormen van bejaardenhuisvesting. **[Kitchens and meal provision in various types of accommodation for the elderly.]** *Instelling-Management*, Amsterdam, 1976, Aug. 25, vol. 8, no. 8, pp. 5-13.

An investigation is reported into the relative merits of 'non-linked' food preparation distribution systems (pre-cooked and frozen meals) and 'linked' or conventional methods in various homes for the elderly. The development of these systems is affected by continually changing factors, such as: efficiency in the kitchen through better staffing and task division; improved quality of food including nutritional value, presentation and temperature control; technical improvements; standardization of special diets; large scale preparation independent of distribution system; standardization of sizes in cooking and transport equipment (e.g. 'Gastronorm system'); modernization in design of kitchen equipment; and use of disposable cutlery and crockery. No generally favoured non-linked system has emerged, preference depending on individual requirements of residential accommodation and nursing homes for physically ill or mentally disturbed elderly patients. Tables are given showing non-linked and conventional methods of food preparation and aspects of quality, technology and organization of both systems in residential and nursing homes. Under either system food prepared on the premises was preferred to external catering.

1743. NATIONAAL ZIEKENHUISINSTITUUT. Toepassing van convenience foods in ziekenhuizen: verslag van een experiment in een tweetal instellingen. **[Use of convenience foods in hospitals: report of an experiment in two institutions.]** Utrecht, Nationaal Ziekenhuisinstituut, 1976, 184pp. f20

In 1970 a working party appointed by the Director General of Public Health in the Netherlands, recommended the development of a new catering system in which the hospital, by separating production from other activities, would obtain greater flexibility,

more easily meet the wishes of the consumer, and stem the increase in staff costs. Separation could only be achieved by using quick freezing methods. This report describes an experimental project involving these methods in two institutions. The report is in five parts: (i) background information; (ii) orientation and formulation of basic principles; (iii) description of the preparatory activities; (iv) execution and evaluation; and (v) summary, conclusions and follow-up. The main conclusions are: (i) convenience foods can be used for all normal diets and 95 per cent of modified diets; (ii) in terms of food value, industrially prepared food is completely acceptable and comparable with traditionally prepared food; (iii) correct use enables a hospital to meet all demands irrespective of volume, place, time or special circumstances; and (iv) completely free choice for the consumer is possible. Some remaining problems are mentioned. [This abstract has been prepared from an English summary of the report.]

DIETETICS IN THE HOSPITAL

1744. JONES, D. C. and DICKERSON, J. W. T. **Decision-making in the nutritional care of unconscious patients.** *Journal of Advanced Nursing*, Oxford, 1976, Sept., vol. 1, no. 5, pp. 359-365.

A study was carried out of the prescription, preparation and administration of 646 tube-feeds to unconscious patients and a questionnaire completed on decision-taking, dietary content, and signs relied upon by nursing staff to monitor nutritional intakes. The results indicated that one of the main areas of neglect was in decision-making. There was minimal involvement of medical and dietetic staff in prescribing feeds for patients, consequently feeding regimes were being given to patients substantially below their presumed requirements. There was confusion among nurses about whose responsibility it was to make decisions about diets and the responsibility was pushed out of the immediate nursing situation onto doctors and dietitians who did not see themselves as having the responsibility for such decisions. It is suggested that decisions regarding the composition of tube feeds should be made in consultation with the dietitian who should be responsible for providing information for the nurses and doctors.

CANTEENS, STAFF DINING-ROOMS

See Abstract No. 1741

FOOD SERVICE

1745. PEDDERSEN, R. B. and DOCTOR, B. **Departmental review leads to changes in operational systems.** *Hospitals*, Chicago, 1976, July 1, vol. 50, no. 13, pp. 99-103.

The food service department of Jewish Hospital, Cinncinnati, carried out a study of patient tray assembly and delivery as an integral part of an overall management review of the department's operational systems. Five problems were identified: (i) hot food temperatures at the point of delivery were below the bacterial growth safety zone and not hot in terms of the palate; (ii) cold food temperatures were not within the bacterial growth safety zone and not cold to the palate; (iii) trolleys had one side open which

exposed unwrapped cold foods to possible contamination in transit; (iv) the rapid decrease in hot food temperatures caused an unreasonable rush in tray delivery and often resulted in the replacement of patient trays when patient eating times were slightly delayed; and (v) an excessive loss of china. Studies were carried out on the use of heated trolleys, tray delivery trolleys fitted with ovens, floor pantries for reheating by microwave, and insulated tray service systems. A trial period was established to test the insulated tray service system against the existing pellet system, and training sessions were set up for staff. The reactions to both systems were evaluated. The tests and results of questionnaires indicated better results for the insulated system than the unitized pellet/open tray system. Hot food was hotter for a longer length of time; food was no longer exposed to possible contamination. Costs were no greater than the $3,711 estimated before the trial, fewer delayed trays and second trays were ordered since food stayed hotter, and there was an increase in employee satisfaction. The entire hospital has now changed to the insulated tray service system.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

1746. LONG, P. K. and MARA, T. **Linen management: one antidote to counteract rising costs.** *Hospitals*, Chicago, 1976, July 1, vol. 50, no. 13, pp. 70, 72-73.

Good Samaritan Hospital, West Islip, N.Y., established a new linen control scheme to reduce the use of linen and related costs. A laundry linen consultant analysed the consumption and needs of the hospital. A supervisory linen control committee was set up, meeting monthly, to discuss policy and problems. A periodic linen use report is produced, and the data analysed. Erratic increases in linen use can be noticed and in-service training schemes set up to solve the problem. A control system of linen standardization has also been established, together with regular physical inventories of circulating linen. Linen use has been reduced by 10 per cent despite a two per cent rise in patient census over the preceding year. The savings on laundry and linen costs amount to more than $17,200 over the same eight months of the previous year. The benefits of the system are: (i) linen requirements are more efficiently satisfied through better planning; (ii) the head nurse has a basis for comparing her linen use with other units; (iii) there have been savings in costs whilst maintaining the quality of care; and (iv) the nursing department with the linen committee can establish in-service training when necessary. Laundry and linen costs can be successfully offset by an organized, long-range scheme of linen management.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

1747. FARMER, J. J. and others. **Detection of *Serratia* outbreaks in hospital.** *Lancet*, London, 1976, Aug. 28, vol. ii, pp. 455-459.

Infections due to *Serratia marcescens* were studied in 23 different hospitals. A

retrospective study was carried out in four hospitals; all isolates were compared by serological typing, antibiograms, bacteriocin production and bacteriocin sensitivity. Two hospitals were having cross-infection problems due to antibiotic-resistant strains, but the other two had little or no cross-infection. Outbreaks were studied in 19 other hospitals; nine of the outbreaks were classified as 'common source' and one hospital had a 'pseudo-outbreak'. The results indicate that hospitals vary considerably in their problems with *Serratia*. Recommendations for control methods are outlined. Cross-infection outbreaks are usually more difficult to control. The clinical microbiologist and hospital epidemiologist should work closely together to recognize infection problems caused by *Serratia*. Evidence of increase in infection is: (i) increase in the number of isolates; (ii) the emergence of a pigmented or antibiotic resistant strain; (iii) a contaminated reservoir; and (iv) a cluster of infections on one of the services. Microbiologists and epidemiologists are encouraged to take a retrospective look at *Serratia* infections in their hospitals.

1748. HODGES, G. R. and PERKINS, R. L. **Hospital-associated bacterial meningitis.** *American Journal of the Medical Sciences*, Thorofare, N.J., 1976, May/June, vol. 271, no. 3, pp. 335-341.

The charts of all patients with a discharge diagnosis of meningitis admitted to the Ohio State University Hospitals from 1 January 1949 to 31 December were reviewed. Eighteen of 349 cases (5.2 per cent) developed after admission to hospital. The patients were adults, usually males, and developed symptoms and signs of meningitis from two to 23 days after hospital admission. Fourteen of the 18 patients had received antibiotics during the week before developing meningitis. Nine had a chronic non-infectious, underlying illness. Only six of the 18 patients survived their infection. The possibility that the patients' meningitis was subclinical cannot be excluded since the acquisition of the casual organism in the hospital cannot be established. Of recent concern has been the development of meningitis in patients receiving cephalothin for documented and suspected infections other than meningitis; one patient developed Pseudomonas species meningitis while receiving only cephalothin. Several possible methods of acquiring hospital-associated meningitis are considered. Prompt recognition, diagnosis and treatment of hospital-associated meningitis in high risk patients may reduce the mortality rate.

1749. PURDHAM, D. R. and others. **Severe echo 19 virus infection in a neonatal unit.** *Archives of Disease in Childhood*, London, 1976, Aug., vol. 51, no. 8, pp. 634-636.

In the period 21 July to 21 August 1975, 12 infants and five staff members in the neonatal unit, Birmingham Maternity Hospital, became infected with echo 19 virus; one infant died. After the initial cases, all babies and staff in the unit underwent virological screening, barrier nursing techniques were intensified, and infected and non-infected infants were geographically separated with different nursing teams. Despite these precautions further cases occurred. It was decided therefore to close the unit. When the last infant was discharged, the walls and furniture were cleaned with hypochlorite and the cubicles fumigated with formaldehyde. After nine days the unit was reopened and there has been no further occurrence. Only staff with negative throat swabs were allowed to return to work until the epidemic in Birmingham as a whole declined.

PREVENTION AND CONTROL

See also Abstract Nos. 1747, 1772, 1794

1750. GOLDMAN, J. M. and others. **The use of plastic isolators to prevent infection in neutropenic patients.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 558-562.

Patients with acute leukaemia have an increased susceptibility to infections of all kinds; infection is the principal cause of death in patients who fail to achieve complete remission. Over the last five years plastic isolators have been used for the prevention of infection in patients with severe neutropenia. The use of plastic isolators and the system involved is described. Fifteen patients in differing stages of acute myeloid and chronic granulocytic leukaemia were managed in isolators for a total of 110 patient-weeks. The mean duration of treatment for each patient in the isolator was 7.4 weeks with a range of two to 14 weeks. There was no evidence of acquisition of any exogenous micro-organism and the patients' endogenous flora remained suppressed and free from potential pathogens. The psychological problems of isolation proved less onerous for the patients than had been anticipated by the medical and nursing staff and no patient had to be removed from isolation for psychiatric reasons. The reduced incidence of clinical infection was not obviously associated with an effectiveness of the anti-leukaemic treatment.

1751. POLAKOFF, S. **Problems of protection against virus B hepatitis.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 580-583.

Various methods have been used to reduce hepatitis B virus infections (HBV) among patients and staff at high risk. An attempt to assess the size of the risk must be made before considering methods of preventing HBV infection. The risks are discussed under the headings: (i) patients transfused with blood or its products; (ii) patients and staff of haemodialysis units; (iii) hospitals for the mentally handicapped; and (iv) all health service staff. After a control and prevention programme was instituted hepatitis B cross-infection was partially eliminated from haemodialysis units in Britain. Prophylaxis with specific immunoglobin reduced attack rates of clinical hepatitis B after accidental inoculation with infective material, to about two per cent. Endemic hepatitis B for the mentally handicapped still remains a problem. Studies of the protective effect of anti-HB IG have been carried out but the results so far have been incomplete; the use of anti-HB_s IG in haemodialysis units is unlikely to completely eliminate HBV cross infection from the units.

1752. TREXLER, P. C. **The development of isolators.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 545-549.

A series of closed-system isolators has been developed which provides patients with the same effective control of microbial infection as is possible in the laboratory animal. The requirements of a hospital isolation plan include: (i) effective control of microbial contamination; (ii) apparatus which can be operated by staff who have no training in microbiology; (iii) apparatus which 'automates' contamination control and allows staff to devote more attention to other aspects of their work; (iv) effective apparatus and

work routines designed for almost any application; and (v) positive cost-benefit. Closed-system isolators are used to protect susceptible patients from exogenous infection as well as to prevent the spread of dangerous pathogens from infected patients. Six models of isolators are designed for use in operating theatres, or on the wards and to transport patients. The systems: supply, bed, cot, intensive care and transit isolators for positive and negative pressure, are described.

1753. KUIPERS, J. S. Vergleichende Untersuchungen verschiedener Flächendesinfektionsmittel in Suspension und auf Flächen. **[Comparative studies of various floor disinfectants in a suspended state and on floor areas.]** *Krankenhaus*, Stuttgart, 1976, July, vol. 68, no. 7, pp. 241-246.

In order to determine the efficacy of Tegodor (containing quaternary ammonium compounds, formaldehyde and glutaraldehyde) as a disinfectant for floor surfaces in operating threatres, intensive care units and similar areas, a series of tests has been carried out comparing this substance with Halamide (tosyl chloramine sodium) and cresol soap. Laboratory tests (using the tray method) and tests under practical conditions (using cotton wool swabs) were made using *Pseudomonas aeruginosa*, *Achromobacter anitratus* and *Staphylococcus aureus* as test organisms. The results, which are set out in tables, show that in the practical tests 0.5 per cent Tegodor was most effective. The conclusion is that Tegodor can safely be recommended for floor disinfection: the substance revealed no unfavourable properties.

1754. NOY, M., VARNEY, J. and AYLIFFE, G. A. J. **Disinfection of plastic aprons.** *Nursing Times*, London, 1976, Aug. 26, vol. 72, no. 34, ICNA supplement, pp. 39-40.

The front of a nurse's apron is the item of staff clothing most often contaminated and likely to be an infection hazard. Plastic aprons are commonly used in hospitals, but in most circumstances are too expensive to be discarded after a single use. A study of the extent of contamination of the front of plastic aprons was assessed by the infection control teams of two hospitals. The effectiveness of spraying the front of the apron with 70 per cent alcohol was also investigated. The results indicate that a plastic apron reduces the transfer of *Staphylococus aureus* from nurses' clothing to a patient's bedding, and it is also possible that skin scales carrying staphylococci are less likely to be redispersed into the air from a plastic apron than from cotton clothing. Since only four per cent of aprons were contaminated with *Staph. aureus* after two hours routine wear and Gram-negative bacilli survive poorly on drying, the value of routine disinfection of plastic aprons is doubtful. Aprons could be disinfected after certain duties, e.g. bedmaking or wound dressing rounds, and discarded when the nurse goes off duty.

HYGIENE IN THE OPERATING THEATRE

1755. MCLAUCHLAN, J. and others. **A study of the wound environment during total hip arthroplasty.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 550-557.

A controlled trial was set up to assess the influence of a surgical isolator upon postoperative wound infection. The trial was performed by carrying out 108 total

hip replacements in a standard plenum-ventilated theatre with 20 air changes/hour, which also housed the isolator procedures, and 109 in the surgical isolator. There was no difference between the groups in terms of age, sex, preoperative diagnoses, previous surgical procedure, operative time and postoperative wound drainage. Comparative postoperative wound infection rates were 6.4 per cent for the isolator patients and 4.6 per cent for those operated on the plenum-ventilated theatre. There was intra-operative wound contamination in both groups of patients and, although the isolator reduced wound contamination at operation, this bore no relationship to eventual wound sepsis.

STERILIZATION

1756. CRIPPS, N., DEVERILL, C. E. A. and AYLIFFE, G. A. J. **Problems with low-temperature-steam and formaldehyde sterilisers.** *Hospital Engineering*, Stevenage, 1976, Aug./Sept., vol. 30, no. 19, pp. 9-11.

The use of low temperature steam (65° to 75°C) and formaldehyde for sterilization, or disinfection without formaldehyde, has many advantages for the treatment of heat-labile equipment in hospitals. However, such sterilizers cannot yet be installed with any guarantee of reliability. Constant testing is required by engineers and bacteriologists. Recommendations for correct use are: (i) good temperature control is essential to avoid damaging heat-sensitive equipment; and (ii) a jacket-temperature control mechanism and a jacket-temperature indicator are required for both single- and dual-cycle machines. Problems encountered in tests on sterilizers are: (i) recorder charts often do not give a true indication of the temperature of the load; (ii) excessive condensation on the load and inner surface of the chamber; and (iii) failure to adequately remove condensate or failure in the aeration process may leave excessive formaldehyde in the chamber. Methods of testing are outlined; it is recommended that a test piece containing a spore strip be included in every load.

DISPOSAL OF WASTE

1757. PIEPOLI, A. I rifiuti solidi ed i problemi relativi all'incenerimento. **[Solid refuse and the problems of incineration.]** *Tecnica Ospedaliera*, Milan, 1976, July/Aug., vol. 6, nos. 7/8, pp. 48-49, 52-53, 55, 57.

Society is producing an ever increasing quantity of refuse and the proportions of plastics and paper within the total of solid refuse are also increasing. Hospitals are obliged to destroy at least some of their own refuse, including a high proportion of plastic material which is the most difficult to incinerate. The author discusses the essentials of a good incinerator in terms of the calorific value of the load, the size of the combustion chamber, temperature, smoke purification systems (scrubbers or electrostatic filters), and post-combustion chambers. He suggests that the heat generated in incinerators should be recovered by means of special heat exchangers. The paper includes two tables relating to quantities of refuse produced, a diagrammatic classification of atmospheric impurities and methods of depulverization, and a sketch of a rotary furnace incinerator.

THE PATIENT

ADMISSION AND RECEPTION

1758. DURBRIDGE, T. C. and others. **Evaluation of benefits of screening tests done immediately on admission to hospital.** *Clinical Chemistry*, Winston-Salem, N.C., 1976, July, vol. 22, no. 7, pp. 968-971.

A study was carried out at the Royal Adelaide Hospital, Adelaide, South Australia, to discover whether in-patient progress was improved and costs were reduced when a series of investigations were carried out at the time a patient was admitted to hospital. Patients were allocated at random to test, control or dummy groups, and sampling was continued until 500 trios of the same admission category were obtained. The results were compared using a variety of indices of in-patient progress. No significant differences were found among the three groups. It was found that 148 test patients had one or more consultations; 25 per cent higher than the number of control or dummy group patients. There was a trend towards the wider use of drugs in test patients, but admission screening had no noticeable effect on the speed with which treatment was begun. Investigation costs increased by 64 per cent as a result of admission screening; specimen testing was not cheaper, there was no decrease in the number of visits to patients for blood specimen collection nor the number of times a patient was moved round the hospital for tests. The final result indicated an increase of five per cent in the estimated total cost of hospital care, without associated evidence of benefit to the patient.

1759. RUSS, W. Der Bettennachweis. **[The bed agency.]** *Krankenhaus*, Stuttgart, 1976, Aug., vol. 68, no. 8, pp. 276-278.

A number of cities in Western Germany have made plans for the setting up of a central bed bureau but at present only Hamburg, Berlin and Munich have such a bureau in operation. When a hospital bed is required either the patient or the referring doctor—preferably the latter since there is less likely to be misunderstanding or faulty information—rings the bureau, giving information on the diagnosis, etc. The bureau then gets in touch with a suitable hospital and also arranges transport for the patient. Hospitals inform the bureau of their bed state every two or three hours: the times of notification for different hospitals are staggered to avoid congestion. Details are given of the systems used, including electronic data processing, to record admissions and discharges and to keep the information at the bureau up-to-date.

WELFARE OF THE PATIENT

See also Abstract Nos. 1795-1800, 1820

1760. WILSON-BARNETT, J. **Patients' emotional reactions to hospitalization: an exploratory study.** *Journal of Advanced Nursing*, Oxford, 1976, Sept., vol. 1, no. 5, pp. 351-358.

A study of patients' hospital experiences which might produce psychological disease or negative emotional reactions was based on 200 interviews with general medical ward

patients. The interview schedule included questions on routine ward events and the implications of a stay in hospital which were expected to evoke positive responses and others expected to produce a neutral or negative response. Responses were 'open' and 'non-structured' and were recorded verbatim at the time of the interview. More items elicited positive than negative responses, and patients were in favour of the attention they received in hospital. The results indicated that negative responses were frequent among females of not more than 40 years of age. The implications of the results are discussed. Nurses have a unique opportunity to relate to patients and give psychological comfort, but more research is required to provide information on which patients are likely to suffer and in which situations and how the nurse can help.

HOSPITAL SOCIAL WORK

1761. HÖLKEN, E. Sozialdienst im Krankenhaus. **[Social work in the hospital.]** *Krankenhaus Umschau*, Kulmbach, 1976, Aug., vol. 45, no. 8, pp. 577-580.

With the increasing development of medical technology, and the tendency to regard the patient as a 'case' and treat the illness rather than the person, the social worker has an important part to play in ensuring that human factors are not forgotten. Here a hospital social worker, in an address to hospital administrators, outlines the main aspects of her work and in particular makes the following points: the social worker needs a private room, easily accessible even to physically handicapped patients, with a waiting room; social work should form an independent department within the administrative structure; the social worker needs adequate clerical and other assistance; and the social worker must have the opportunity to continue her education by attending refresher courses and other meetings. Other professional staff should be fully informed on the role of the social worker so that they can refer patients in need of her services.

THE GENERAL PRACTITIONER AND HIS PATIENTS

See Abstract No. 1765

HOSPITAL CARE

See also Abstract Nos. 1726, 1732, 1789, 1791, 1802, 1807, 1821-1824, 1832

1762. MOUNT, B. M. **The problem of caring for the dying in a general hospital; the palliative care unit as a possible solution.** *Canadian Medical Association Journal*, Ottawa, 1976, July 17, vol. 115, no. 2, pp. 119-121.

The general hospital has disturbing deficiencies as a setting for terminal care; particularly, the medical, emotional and spiritual needs of the patients and their families are neglected. Consideration of the options for improving the situation led to the opening of the palliative care unit (PCU) at the Royal Victoria Hospital, Montreal. The 12-bed PCU is staffed by a multidisciplinary team with a positive and creative attitude to death and bereavement. The unit also provides a domiciliary service staffed by nurse practitioners and a consultation service to other hospital departments, as well as research and teaching functions.

1763. HAUSSMAN, R. K. D., HEGYVARY, S. T. and NEWMAN, J. F. **Monitoring quality of nursing care. Part II. Assessment and study of correlates. [DHEW Publication No. [RHA] 76-7].** Bethesda, Md., U.S. Department of Health, Education and Welfare, 1976, xi, 128pp.

This publication reports the results of the second phase of a study by Rush-Presbyterian-St. Luke's Medical Center, Chicago, and the Medicus Systems Corporation. The objectives were: (i) to test the methodology developed in the first phase; (ii) extend it to newborn nurseries and recovery rooms; (iii) analyse the influence of certain organizational factors and of educational background on nursing performance; and (iv) begin to relate nursing processes to measures of patient outcome. The study was carried out in 19 hospitals in the period 1 July 1973 to 31 December 1974. This phase of the project has shown that: (i) the process instrument is valid; (ii) the process measures have some positive relation to outcomes; and (iii) nursing quality is related to a multiplicity of variables many of which are subject to hospital management control.

1764. MCLACHLAN, G., editor. **A question of quality? Roads to assurance in medical care.** London, Oxford University Press for the Nuffield Provincial Hospitals Trust, 1976, xi, 297pp. £9.00

This book is the result of deliberations of a small group convened by the Nuffield Provincial Hospitals Trust in 1972 to look at general questions of quality of care. The volume includes: (i) introduction and perspective by the editor; (ii) six papers on the analysis of professional practice in various settings; (iii) five papers on administrative means of reviewing quality of care; (iv) a paper on quality assurance mechanisms in the United States; and (v) postscript and prospect, by the editor.

DISCHARGE OF PATIENTS

See also Abstract No. 1724

1765. TULLOCH, A. J. **Hospital discharge reports: design and content.** *Update*, London, 1976, Sept. 15, vol. 13, no. 6, pp. 517-520.

The design of hospital discharge reports should ensure that: (i) all pertinent information is available; (ii) the report can be easily and quickly interpreted and reviewed; (iii) access to important data is facilitated; (iv) the collation of important information is promoted; and (v) follow-up by the primary care team is carried out. The optimum hospital discharge report should meet the following requirements: (i) clear identification of the hospital, department involved and the consultant in charge of the case; (ii) full name, address, date of birth, hospital number and National Health Service number of the patient; (iii) name of family doctor; (iv) date of admission and discharge; (v) summary of presenting symptoms and patient's problems; (vi) side-effects of therapy; (vii) record of progress and treatment on discharge; (viii) information given to the patient; (ix) follow-up; and (x) name and status of reporting doctor. The use of abbreviations should be avoided. Careful attention to data layout is vital and the structural format can be amplified by a narrative report and lists of investigation results where necessary. Examples are given of a typical discharge letter in narrative format and final reports in structured format.

HOME CARE, AFTER-CARE

See Abstract Nos. 1771, 1786, 1806, 1825

SPECIAL DEPARTMENTS

WARDS

See Abstract Nos. 1736, 1833

OPERATING SUITES

1766. ELZINGA, E. and TUINMAN, H. Statistiek operatiekamers als planningsinstrument. **[Operating theatre statistics as a planning instrument.]** *Ziekenhuis*, Utrecht, 1976, Sept. 1, vol. 6, no. 17, pp. 442-446.

Of 12,000 annual admissions to the 500-bed Roman Catholic Hospital, Groningen, 7,000 receive surgical treatment. In 1973 a multidisciplinary committee was set up to plan maximum efficiency in the use of the operating theatres based on statistics drawn from practical experience. Account was taken of capacity and space of theatres, availability and wishes of operating staff, numbers, waiting lists and priority of patients, staff training and economics. A preliminary plan on a weekly basis was worked out whereby 65 per cent of operating time was permanently reserved and 35 per cent kept available for emergencies, etc. Evaluation after three months proved this plan to be satisfactory, but also showed the need for accurate statistics regarding: (i) number of operations per theatre, per day and number of hours each day; (ii) number of operations per surgeon, specialty, working and overtime hours, acute cases; (iii) average time and variation of operation code per surgeon and per specialty; and (iv) number of required staff. Since 1975 punch cards have been in use for registration of the above data from each operation. Results are shown in five tables and explained. The information is valuable in assuring an efficient flow of permanent and emergency operating times.

PHARMACY

1767. SCHWEIGERT, B. F. **Drug information services on a subscription basis.** *American Journal of Hospital Pharmacy*, Washington, 1976, Aug., vol. 33, no. 8, pp. 823-827.

The drug information service (DIS) at Memorial Hospital Medical Center, Long Beach, Calif., provides a subscription service to five hospitals and a pharmaceutical association in Southern California. The DIS is staffed by a pharmacist and a clerk from Monday to Friday, supplemented by 15 hours per week of pharmacy resident time for dealing with calls in the evening and at the week-end. Sixty-six per cent of questions fall into three general categories: drug toxicity, therapeutic use, and dosage. The majority of inquiries are received by telephone; written answers are prepared for all questions received from subscribers, providing a reference document that can be used by a pharmacist at a later date. The two methods of subscription are: (i) a monthly fee based on hospital bed size; and (ii) a fee per question. The monthly fee allows unlimited DIS

use and provides a guaranteed income. The fee per question is more suitable for private doctors and hospitals needing less frequent use of the service. The methods of calculating the fees, subscription rates and expenses are outlined, together with the mode of operation, work load and reference sources. Prospects for the future expansion of drug information services could be greatly improved if the DIS subscription concept can be shown to be financially self-supporting.

1768. BALLENTINE, R., RAVIN, R. L. and GILBERT, J. R. **ABC inventory analysis and economic order quantity concept in hospital pharmacy purchasing.** *American Journal of Hospital Pharmacy*, Washington, 1976, June, vol. 33, no. 6, pp. 552-555.

A study to investigate two systems of inventory control used in materials management (ABC inventory analysis and EOQ economic order quantity) was carried out in the pharmacy of St. Joseph Mercy Hospital, Ann Arbor, Mich. The theory behind the two systems is outlined. A representative sample of the inventory was taken and an ABC inventory analysis performed and EOQs determined. The inventory was divided into A, B or C groups according to the annual value of the items. Two samples were studied (the first consisting of 10 per cent of the total inventory and the second consisting of 10 per cent of the A, or high cost, items). The EOQ was calculated for each item to estimate the proposed annual inventory cost as compared to the actual cost as determined from past inventory records. In the first sample there was a mean annual saving of $\$4.13 \pm \$0.36$ (SE) per item using the proposed annual cost; in the second sample there was a mean saving of $\$2.42 \pm \$2.60$ (SE) per item using the proposed method. The majority of the savings with the proposed ABC-EOQ system would arise with the low cost items (B and C) which were being purchased too frequently. Recommendations include: (i) a minimum inventory value can be created to separate A items from the rest of the inventory; (ii) the whole ABC-EOQ system could be computerized; (iii) A items could be purchased monthly and B and C items purchased on a quarterly basis; and (iv) submission of orders could be staggered to keep a steady cash flow.

1769. KLEIJN, E. van der. **Methods to establish and monitor individual medication profiles and dosage regimens in pharmacotherapy: development of clinical pharmacy at the Sint Radboud Hospital of the University of Nijmegen.** *Journal of Clinical Pharmacy*, Oxford, 1976, June, vol. 1, no. 2, pp. 77-105.

The clinical pharmacy service of Sint Radboud Hospital, Nijmegen, is described. The service consists of a domestic part covering drug distribution, custody, preparation, dispensing, prescription processing and information service, and a clinical pharmacology component dealing with drug concentration and dosage management for toxicology and selected therapeutic areas. Selected areas of the pharmacy service have been incorporated into various clinical departments and wards. A service has been developed with five main parts: drug distribution; prescription processing; drug dispensing; drug utilization; and clinical pharmacokinetics. A committee has been set up to maintain the 'Radboud formulary'. Unit dose packaging of drugs has been established for all ward stocks and the medication order and administration charting Kardex system works on 80 per cent of the wards which also use the medication trolley. A study of the preparation and dispensing routine by pharmacy assistants at the wards before administration of the drugs and charting by nurses is still in process. The work of the clinical pharmacokinetics laboratory is described.

1770. BONAL, J. **Basic courses in clinical pharmacy given at the Hospital de San Pablo of Barcelona, Spain.** *Journal of Clinical Pharmacy*, Oxford, 1976, June, vol. 1, no. 2, pp. 119-122.

The role of hospital pharmacists in Spain is changing from that of the classical chemically-oriented compounding expert to a clinically-oriented drug expert. In some hospitals unit dose distribution systems are being established together with drug information centres, hospital formularies and pharmacy and therapeutic committees. To implement the change new postgraduate programmes for hospital pharmacists are required. The Hospital de San Pablo, Barcelona, has established two courses of two weeks' duration showing the basic factors required to educate pharmacists in clinical pharmacy. The organization of the courses is outlined. Twenty-one pharmacists attended in 1974 and 24 in 1975. The students considered the course successful and useful, giving a global perspective of clinical pharmacy.

1771. PARKIN, D. M. and others. **Deviation from prescribed drug treatment after discharge from hospital.** *British Medical Journal*, London, 1976, Sept. 18, vol. ii, pp. 686-688.

A study of 130 patients discharged from four general medical wards dealing mainly with acute medical cases showed that 66 deviated from the drug regimen prescribed on discharge. Of the patients studied, 46 did not have a clear understanding of the regimen and 20 of the remaining 84 patients understood the regimen but did not follow the instructions. Non-compliance and non-comprehension were significantly related to the number of drugs prescribed. Age, sex and social isolation were unrelated to compliance, and associations with social class and education were not statistically significant. The two factors associated with non-comprehension and non-compliance were the complexity of the prescribed regimen and the drug treatment taken before admission. Mistakes in the dosage of drugs were more common for those drugs prescribed in several daily doses. Adherence to drug treatment is unlikely to be improved unless doctors make their patients' regimens as simple as possible. Many patients appear to hoard old prescribed medicines and common sources of error were using dosages that had been operative before hospital admission and the reversion to old prescriptions after discharge. Better communications between doctor and patient would reduce the scope for non-comprehension. The development of methods of achieving more effective co-ordination of hospital and community medical care would also contribute to the solution of the problems.

1772. DUCEL, G. and AMACKER, P. A. **Can unit dose contribute to the prevention of hospital infection?** *Journal of Clinical Pharmacy*, Oxford, 1976, June, vol. 1, no. 2, pp. 69-76.

The primary reason for the hospital pharmacist preferring the use of medicines packaged in unit doses is increased safety in the distribution and administration of drugs to patients. A study was carried out at the Geneva Cantonal Hospital on the risks of contamination of tablets, multiple-dose vials and eyedrops. The methods used are outlined. The results indicate that unit dose packaging provided safety for both the patient taking the tablet and patients in the vicinity. Possible situations in which contamination may occur are discussed together with recommendations for preventing contamination.

1773. GREY, C. **Comparison of methods and costs of preparing intravenous piggyback solutions.** *Hospital Pharmacy*, Philadelphia, 1976, June, vol. 11, no. 6, pp. 214, 218, 221-222.

The pharmacy department of the Linda Loma University Medical Center, Calif., carried out a study to determine the possible economies and efficiencies that might occur if the Beecham Intravenous Piggyback System (IVPB) was adopted as standard procedure in the pharmacy. The pharmacy provides a 24-hour service for the hospital. The advantages of the IVPB System over partial-fill containers were: (i) single inventory required; (ii) reduced costs overall; (iii) reduction in storage space; (iv) simpler to operate; and (v) elimination of error. Costs of the two systems, together with controlled time and motion studies, are detailed. The disadvantages of the IVPB system are outlined. The system has shown itself to be quite acceptable in general use together with the economies in costs and elimination of extra work. Inventory has been reduced together with the possibility of errors.

LABORATORIES

See also Abstract Nos. 1689, 1758, 1781

1774. LINGJÅRDE, P. Laboratorium for klinisk kjemi—funksjoner. **[Functions of the clinical chemistry laboratory.]** *Sykehuset*, Oslo, 1976, vol. 39, no. 4, pp. 169-189.

The clinical chemistry laboratory has four main areas of responsibility: (i) consultative activities; (ii) the taking, testing and analysis of samples and specimens; (iii) the development and introduction of new methods of analysis, checks on quality, maintenance of equipment and instruments, electronic data processing; and (iv) teaching and research. The functions can be sub-divided between pathology, clinical physiology, nuclear medicine, microbiology and immune haematology. All these functions are served by one or more of a set of routine analytical procedures. Depending on the size of the hospital, more or fewer of these analyses will have to be performed centrally; only the largest will be capable of performing them all. Both routine and special analyses are associated with what are essentially traffic problems: the control and direction of data flow and the flow of patients and specimens. On the basis of the laboratory team's prognoses of future needs, and the framework voted by the political decision-making processes, the architect has to design a department capable of meeting current demands and expanding to suit future needs. The paper is illustrated with a series of block diagrams to demonstrate the concepts set out above, and the ground plan of a clinical chemistry laboratory planned on the basis of this description of functions.

1775. BENFARI, M. J. and NEUHAUSER, D. **Paying for diagnostic accuracy.** *Health Care Management Review*, Germantown, Md., 1976, vol. 1, no. 3, pp. 7-12.

One of the difficult problems facing managers is how to evaluate the benefits to be gained from introducing a new diagnostic test that may be more effective, but also more expensive. Numerical analysis cannot completely answer the question, but it can isolate the area of subjective judgement and limit the range of uncertainty. In this paper some analytic tools from statistics, decision and cost-effectiveness analysis are applied

to the question of whether to replace a $4.00 serologic test for syphilis with a $12.00 one. There is no correct answer, but the device may prove useful for tackling such problems.

1776. REYNOLDS, S. D., LOVE, B. F. and KRALL, J. M. **Job analysis in the clinical laboratory.** *American Journal of Medical Technology*, Houston, 1976, May, vol. 42, no. 5, pp. 166-171.

A survey was carried out of the laboratory staff in 55 hospitals within a 100-mile radius of Morgantown, W. Va. Only 26 per cent of the total of 1,532 were members of the American Society of Clinical Pathologists (ASCP). The results of the survey were analysed using the chi square test, and comparison was made between the tasks performed by ASCP-certified medical technologists and ASCP-certified laboratory assistants. Medical technologists and certified laboratory assistants performed the same tasks with few differences; only teaching and supervision were more frequently carried out by medical technologists. Only 16 per cent of the tasks in the job description had significant chi square values, indicating that a person's certification level was not a factor in whether he or she performed a task. The certified laboratory assistants were more often employed in highly automated areas of the laboratory (chemistry) than in areas with little automation (microbiology) and the bed capacity of the hospitals did not appear to be a factor in the percentage of medical technologists working in the hospitals.

BLOOD TRANSFUSION DEPARTMENT

1777. HEISTØ, H. Laboratorium for immunhematologi og medisinsk immunologi —funksjoner. **[Functions of the immune haematology and medical immunology laboratory.]** *Sykehuset*, Oslo, 1976, vol. 39, no. 4, pp. 203-215.

The joint specialty of immune haematology and medical immunology has as its prime responsibility the blood transfusion service with its many sub-functions: (i) recruitment and registration of blood donors: (ii) survey of blood donor corps; (iii) collection and storage of blood; (iv) production of blood components; (v) fractionation of plasma; (vi) blood group serological work; and (vii) organization of the infusion service. Ullevaal Hospital collects blood donations from some 20,000 donors a year and supplies all the hospitals in the Oslo area. Details are given of the accommodation provided for the new laboratory at Ullevaal, which is expected to have to expand to take 40,000 donations a year by the end of the century as well as to take on a series of regional analytical functions. The paper includes plans of the new blood banks at Førde Central Hospital and Ullevaal Hospital.

DIAGNOSTIC X-RAY DEPARTMENT

1778. JANOWER, M. L. **Administration of a radiology department: hints for day-to-day operation.** Springfield, Ill., Charles C. Thomas, 1976, xi, 59pp. £4.15

The purpose of this book is to demonstrate that the application of commonsense and sound business management principles to a radiology department will result in a marked improvement in its day-to-day operation. The systems described were originally developed at Massachusetts General Hospital and modified at St. Vincent's Hospital, Worcester, Mass. In addition to an introduction and epilogue, there are papers on

patient control, messengers, the radiological examination, the file room, film interpretation, and report transcription.

1779. PHILLIPS, D. F. and LILLÉ, K. **Putting the leash on 'CAT'.** *Hospitals*, Chicago, 1976, July 1, vol. 50, no. 13, pp. 45-49.

Computerized axial togmography (CAT) is a procedure whereby X-ray images of cross sections of the head or body are reconstructed from numerous angles mathematically by computer into three dimensions. The advantages of CAT over conventional procedures are outlined. The impact of CAT on the cost effectiveness of neurodiagnosis at Toronto General Hospital is considered among others. Questions are raised on the medical, ethical and legal aspects of using CAT, together with the number of CAT units sufficient or necessary for a community and where they should be sited. The economic aspects of setting up a CAT and carrying out scanning procedures are discussed. There are no official medical guidelines, as yet, for determining the priority for access to CAT scanning on the basis of medical need. The estimated total cost per scan including the cost of the doctor would be $130 to $140 based on 3,000 scans per year. The many guidelines produced for the allocation of CAT equipment are inconsistent and the American Hospital Association has urged hospitals to exercise caution and delay purchasing until they are sure they have enough information upon which to base their decisions. Co-operative efforts and shared services between hospitals are suitable for providing CAT for out-patients at lower costs.

1780. LEV, B. and others. **Patient flow analysis and the delivery of radiology service.** *Socio-Economic Planning Sciences*, Oxford, 1976, vol. 10, no. 4, pp. 159-166.

An analysis was carried out of the Diagnostic Radiology Department (DRD) at Temple University, Philadelphia, to study the long waiting times for patients and the low use of equipment. Improvements in the DRD can be categorized into three fields: (i) increased use of staff and facilities; (ii) improvements using simulation techniques; and (iii) computer scheduling and control. The system is described and evaluated. The congestion points and controllable variables are outlined. A simulation model measured the performances in the department under a typical daytime load (160 patients), a heavy load (220) and a light load (135). The effects of changing the number of technicians and orderlies, decreasing the examination rooms and altering the method of scheduling patients were studied. The model indicated that an increase in the number of technicians or orderlies would not decrease waiting times, nor the total time spent in the department; increasing the number of examination rooms was rejected because of the cost. The number of technicians could be reduced by one and the department's performance would not be affected. The model revealed that for an improved radiology service the emphasis should be directed towards the design of the management systems and scheduling techniques, and not the staff and/or facilities.

RADIOISOTOPE DEPARTMENT

1781. ROOTWELT, K. Laboratorium for nukleärmedisin — funksjoner. **[Functions of the nuclear medicine laboratory.]** *Sykehuset*, Oslo, 1976, vol. 39, no. 4, pp. 198-203.

Radionuclides can be used both therapeutically and diagnostically, with diagnosis

predominating. Two special circumstances complicate nuclear medicine: the need for radiation protection, and the ventilation and disposal of radioactive wastes. The equipment required in addition to ordinary laboratory equipment is outlined. The staff (physical chemists, radiographers, nurses and office staff) require training in nuclear medicine, radiophysics, radiochemistry and radiopharmacy, as well as expertise in electronics and computer techniques. The Norwegian Government requires a well-equipped nuclear medicine laboratory in each county, bearing in mind that over half of all nuclear medicine services are required for out-patients. For a population of 200,000 to 250,000, the annual expected work load comprises 4,000 scintigraphs, 2,000 other investigations and 10,000 in vitro analyses. The area required is at least 300 m^2 net, or the same accommodation and equipment as is at present available for the Norwegian National Teaching Hospital (*Rikshospitalet*). The paper includes a detailed list of rooms required.

OCCUPATIONAL THERAPY DEPARTMENT

See also Abstract No. 1826

1782. GROOTVELD, E. and DIJKMAN, F. De ziekenhuispatiënt en des duivels oorkussen. **[The hospital patient and idle hands.]** *Ziekenhuis*, Utrecht, 1976, Aug. 18, vol. 6, no. 16, pp. 416-420.

The occupational therapy unit, Saint Radboud Hospital, Nijmegen, occupies part of a second floor corridor which includes the library, an area on the ground floor for craft work, a room in the dermatology department and another in the neurology department. The object is to assist treatment and prevent the 'hospitalization syndrome'. The number of patients attending each ground and second floor section is about 20, their average age between 17 and 40. Every morning eight therapists attend to selected bedfast patients. Emphasis throughout is on personal contact. Activities include woodwork, sewing, games, etc. and patients' own hobbies. Visitors are invited to join. A regular trolley shop sells board games, toiletries, stationery, etc. The library provides space to read and lends out books, including large-print volumes, and cassettes. Close co-operation with nursing staff is achieved and is especially important for patients in isolation units. More co-operation with medical staff and with social services is sought. Relations with other disciplines, such as physiotherapy and pastoral care, are good. The extent of the hospital grounds and the rather improvized accommodation are still problems. The final aim is for occupational therapy to form an integral part in total patient care.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 1712

1783. CARTER, F. and others. **Cost of management of patients with haemophilia.** *British Medical Journal*, London, 1976, Aug. 21, vol. ii, pp. 465-467.

The costs of managing 114 adult haemophiliacs at the Haemophilia Centre, Glasgow Royal Infirmary, were assessed for the period 1 March 1971 to 28 February 1974. The results indicated that 23 patients accounted for 80 per cent of the cost, and consequently any attempt to evaluate the cost of a change in the method of treating haemophilia

should concentrate on this group of 'frequent attenders'. The yearly cost for individual patients varied from £417 to £4,624. The cost of hospital treatment of these patients during the study period was compared with the predicted cost of home treatment, given the availability of freeze-dried factor VIII concentrate in sufficient amounts. The overall yearly cost of home treatment would be 16 per cent more than that of the present method of treatment. The study suggests that the total cost of haemophilia is more than the cost of treatment. If home treatment can reduce morbidity and allow some of the unemployed to return to work the total cost to the community would be reduced. Prompt home treatment might also prevent long-term crippling and consequently reduce the amount of long-term care required.

1784. HILL, R. D. **Running a diabetic clinic.** *British Journal of Hospital Medicine*, London, 1976, Sept., vol. 16, no. 3, pp. 218, 221-222, 225-226.

Clinics for diabetic patients have been set up in Wolverhampton and Poole. The Wolverhampton clinic uses selected interested general practitioners whereas the Poole scheme uses a community care principle integrating all services available within the community for looking after diabetics. A plan for the staffing of a diabetic clinic is outlined together with the buildings, appointment systems, clinic notes, and review and special investigation clinics. The roles of the family practitioner, health visitor and community nurse are considered. A modern laboratory service should provide open facilities for certain selected investigations. The postgraduate centre should provide junior staff and general practitioners with facilities for learning more about diabetes and keeping up to date with the subject. The local branch of the British Diabetic Association should also be encouraged in the health education of its members. It is essential for a specialist in diabetes to be appointed with adequate staff to put his ideas into practice. Nurse practitioners could be trained to carry out work in the community, and should be employed by the district under the direct control of the consultant in charge of the diabetic clinic. The aim of the clinic is to provide an all-round service, not only during the occasional visit to the clinic every two or three months but also when required at home.

1785. PLISKIN, J. S. and others. **Hemodialysis—projecting future bed needs. Deterministic and probabilistic forecasting.** *Computers and Biomedical Research*, New York, 1976, Aug., vol. 9, no. 4, pp. 317-336.

Most individuals in the United States covered by social security are currently entitled to virtually complete coverage of haemodialysis and/or transplantation treatments. The level of expenditure required for such a programme obligates planners to estimate carefully future demand. This paper demonstrates three methods for projecting future needs for haemodialysis beds. Two methods are deterministic and project only average future needs. These average needs are first calculated by solving a series of deterministic recursive difference equations and the results are then re-affirmed by a mark or chain analysis. The probabilistic forecasting method is handled by repeatedly simulating the possible flows in the patient system. A sensitivity analysis has been carried out and final projections are heavily influenced by the percentage of patients receiving home dialysis. Although specific assumptions are used, the methods described allow one to use figures or assumptions most suitable for a particular setting. In addition, the methods and approaches described are quite general and thus are applicable to many other types of services.

1786. MACNIVEN, P. A. M. **Home dialysis.** *Nursing Times*, London, 1976, Aug. 19, vol. 72, no. 33, pp. 1286-1287.

The haemodialysis unit at the Withington Hospital, Manchester, serves the North Western area, which stretches from Kendal to Crewe. Patients are screened in the renal ward of the hospital before coming to the unit. The unit ensures that after training patients will be able to carry out the dialysing procedures during the evening and night at home, so that they can continue a normal working pattern. The home dialysis sister visits the patients' homes to see how they will manage their dialysis and determines whether an existing room can be adapted as a dialysis room or whether a building extension is required. The costs of the equipment and conversions are discussed. The patient is expected to cope with dialysis by himself; the nursing staff act only in an advisory capacity. Home visits are restricted to those people in difficulty and often coincide with dialysing times, as the majority of problems often involve dialysis technique. Since 1968 123 patients have been put on home dialysis. It is hoped that developments in the future will make dialysis easier and less time-consuming, meanwhile the aim of the unit is to allow the patient to lead as normal a life as possible.

INTENSIVE CARE UNITS

See also Abstract Nos. 1690, 1691

1787. SHEPPARD, L. C. and KOUCHOUKOS, N. T. **Computers as monitors.** *Anesthesiology*, Philadelphia, 1976, Aug., vol. 45, no. 2, pp. 250-259.

The value of the computer in monitoring has been confined mainly to the automation of measurement, acquisition, display, storage, retrieval and charting for the medical record. Computer applications for the control of therapy have not been widely accepted in spite of successful implementation in some hospitals. Coronary care systems are oriented towards the central station concept whereas the majority of cardiothoracic units need bedside monitoring. The components for a computer system are outlined. Systems designs include the time-shared computer, the process-control computer, multiple minicomputers and the time-shared minicomputer. Examples of their use in the coronary care units of several hospitals are described. The systems may also be used for clinical measurements, monitoring arrhythmias, data management and computer-controlled interventions. The impact on staff, care and costs is analysed. In order to produce a successful system it is necessary to: (i) identify the clinical needs; (ii) define the problem; (iii) establish specific objectives; (iv) design relevant solutions; (v) implement robust technology; (vi) integrate the system into the operation of the unit; and (vii) follow-through with training, maintenance, evaluation, revision and up-dating.

1788. UNITED STATES. NATIONAL CENTER FOR HEALTH SERVICES RESEARCH. **Computer-based patient monitoring systems.** (DHEW Publication No. (HRA) 76-3143) Rockville, Md., National Center for Health Services Research, 1976, ii, 41pp.

This report reviews the several configurations of patient monitoring systems in ways that will permit administrators, physicians, nurses and board members to weigh the need against costs in money, time, space and staff. Following an introduction and

background, there are chapters on: description of systems; potential advantages; factors to be considered in determining the feasibility of systems; selection of a system; operation of a system; and evaluation of system operation and further system development.

1789. MASSACHUSETTS GENERAL HOSPITAL. **Optimum care for hopelessly ill patients: a report of the Clinical Care Committee.** *New England Journal of Medicine*, Boston, Mass., 1976, Aug. 12, vol. 295, no. 7, pp. 362-364.

The Critical Care Committee, Massachusetts General Hospital, Boston, recommends the adoption of a patient classification system and the establishment of an optimum care committee, a permanent committee on the optimum treatment of the hopelessly ill patient. Critically ill patients are classified as: (i) maximum therapeutic effort without reservation; (ii) maximum therapeutic effort without reservation, but with daily evaluation; (iii) selective limitation of therapeutic measures; and (iv) all therapy can be discontinued. The assignment and use of the classification is explained. The system has been in use as a pilot study for six months in an 11-bed multidisciplinary critical care unit. Of 209 patients admitted to the unit, only 15 were referred to the optimum care committee. The benefits of the scheme are: (i) clarification of misunderstanding about the patient's prognosis; (ii) re-opening of communication; (iii) re-establishment of unified treatment objectives and rationale; (iv) development of the shared sense of responsibility for patient and family; and (v) increased support for the doctor in deciding whether to intensify, maintain or limit efforts to reverse the illness.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract No. 1784

1790. JASPAR, W. M. **Hospital-based primary care group practice.** *Hospital Forum*, San Francisco, 1976, Aug., vol. 19, no. 3, pp. 10-11, 22.

California Hospital Medical Center, Los Angeles, has established a hospital-based primary care group practice in central Los Angeles, under the name of California Primary Physicians (CPP). CPP is a group of independent doctors divided into groups for in-patient and out-patient coverage. The group is subject to hospital standards of quality and charges are made on a modified fee-for-service basis. Service to the community has been greatly improved since the group began. Emergency patients without their own doctor are now routinely admitted to hospital rather than being transferred. Continuing primary care is available at all times and patients may arrive with or without appointments. The success of the scheme is outlined. Problems encountered in the group practice through the increase in number of patients are: (i) is medical or surgical management more appropriate; (ii) possible over-use of ancillary services; and (iii) co-ordination of care. Preconditions necessary for the successful establishment of a similar primary care group practice are: (i) shortage of primary care in the community; (ii) existence of emergency and out-patient departments; (iii) problems of coverage in the emergency department; (iv) a number of well-qualified doctors;

(v) willing and informed staff; (vi) unused capacity in in-patient, out-patient and ancillary services; (vii) financial viability; (viii) sufficient capital for the project; and (ix) available administrative and managerial skills.

1791. SHERMAN, H. and KOMAROFF, A. **Keeping up with . . . ambulatory care protocols as management tools.** *Health Care Management Review*, Germantown, Md., 1976, vol. 1, no. 3, pp. 47-52.

A protocol (also called a clinical algorithm) is an instrument (either paper-based or computer-based) which describes the appropriate steps to be taken in the management of a particular problem. This paper describes what protocols are *not* and uses a sample protocol to explain their use. The guiding principles and development of the protocol are outlined. Experience indicates that the use of protocols enhances conformance with defined optimal standards of care, thereby improving the outcome of patient care. It is also considered that the use of protocols offers medicolegal protection and facilitates education.

CASUALTY AND ACCIDENT

See also Abstract Nos. 1695, 1808

1792. GHENT, W. R. and DAGNONE, L. E. **A numerical method of evaluating and categorizing hospital emergency departments.** *Canadian Medical Association Journal*, Ottawa, 1976, July 17, vol. 115, no. 2, pp. 149-152.

The capabilities of individual emergency departments participating in an emergency medical services system must be evaluated as the first step in improving the services of a region. A study of the 19 hospitals in the South-eastern Ontario Health Region used a weighted point-scoring method, which assigned numerical values to essential elements of an emergency department grouped into four areas: staff, facilities, equipment, and organization. Brief details are given of the points allocated in each area. The results produced a scale of minimum requirements for five classes of emergency department that would enable each unit to match the patients' needs with the available community resources. Definitions of these five classes are given and their points score shown in a table.

1793. CONWAY, H. **Emergency medical care.** *British Medical Journal*, London, 1976, Aug. 28, vol. ii, pp. 511-513.

A survey was carried out over five periods between 1973 and 1975 to study the method of referral of emergency medical patients to the Royal Alexandra Infirmary, Paisley. The results of the survey revealed that of 2,511 patients 51 per cent referred themselves, 40.8 per cent were referred by general practitioners, and only 4.7 per cent by doctors employed by the emergency treatment service. Of the 1,720 patients admitted to the medical wards 50.9 per cent were referred by general practitioners and 37.3 per cent were self-referred. The corresponding figures for the 791 not admitted were 19 per cent and 80.7 per cent. Two-thirds of the self-referred patients came from their own homes, by ambulance. The results indicate that the public might benefit from an entirely hospital-based emergency medical service in urban areas, and the emergency treatment service would then be unnecessary. Much of the responsibility would be

removed from the ambulance and police service. The system would ensure prompt attention in an emergency and at the same time prevent unnecessary admissions.

DAY HOSPITALS

See Abstract Nos. 1800, 1834

INFECTIOUS DISEASES AND ISOLATION

See also Abstract Nos. 1750, 1752

1794. EMOND, R. T. D. **Isolation for high-risk patients.** *Postgraduate Medical Journal*, Oxford, 1976, Sept., vol. 52, no. 611, pp. 563-566.

Standard isolation accommodation in single rooms without mechanical ventilation affords a high degree of protection against infectious diseases prevalent in the United Kingdom, but higher standards are needed for more dangerous infections imported from overseas. Much can be achieved by modifying the structure of existing isolation wards or by making use of plastic isolators to contain infection. Over a five-year period one of the cubicle isolation wards in the Infectious Diseases Department of the Royal Free Hospital, London, was found to have six cases of cross-infection with chicken pox among 789 susceptible contacts, giving an incidence of 0.9 cases/1,000 days of exposure. The basic design of the ward appeared sound giving a high degree of protection against airborne virus infections. By physically separating the patient from the attendants the Trexler plastic isolator now gives a greater degree of protection and creates a high-security unit. The use of this isolator is of particular value when dealing with dangerous infection against which there is no form of immunization.

CHILDREN

See also Abstract Nos. 1695, 1827, 1835

1795. HOOD, C. **Children abandoned in long-stay hospitals.** *Child Care, Health and Development*, Oxford, 1976, July/Aug., vol. 2, no. 4, pp. 239-250.

A study was conducted in six hospitals of children who had been abandoned, that is were under 18 years of age and had not been visited by parents nor gone home in the six months preceding the survey. Almost a fifth of the total population of children in the hospitals studied met this definition; about a third of the final sample of 68 were abandoned early in their lives, and for the remainder, admission itself appeared to be a factor in abandonment. Remedies and alleviation are discussed.

1796. RODECK, H. Kind-Eltern-Krankenhaus. **[Children-parents-hospital.]** *Krankenhaus*, Stuttgart, 1976, July, vol. 68, no. 7, pp. 231-235.

In recent years there has been increasing recognition by West German hospitals of the need for extending visiting times and facilities in children's wards. Some of the arguments which have been (and in some cases still are) used against parents visiting

their children are listed and discussed. Frequent close contact between mothers and their infants and pre-schoolchildren is particularly important. For schoolchildren separation from home and school can in some cases be a positive advantage, giving the child a sense of independence. Among other points made are the following: special units for mothers to stay with their children can be invaluable; children, especially those who show anxiety, should be prepared beforehand by suitable booklets or pre-admission visits; and doctors and nurses often do not give a child enough explanation about his treatment or operation.

1797. QUINTON, D. and RUTTER, M. **Early hospital admissions and later disturbances of behaviour: an attempted replication of Douglas' findings.** *Developmental Medicine and Child Neurology*, Tadworth, 1976, Aug., vol. 18, no. 4, pp. 447-459.

A study was carried out to assess whether hospital admission in early childhood can lead to persistent acute emotional distress. Two studies of the general population of 10-year old children living on the Isle of Wight and in an inner London borough identified those children with emotional and behavioural patterns at school. Single hospital admissions lasting a week or less were not associated with any form of later emotional or behavioural disturbance. However, the study confirmed that repeated hospital admissions are significantly associated with disturbance in later childhood. The association is most marked in the case of children from disadvantaged homes and may represent a causal influence. Detailed psychiatric assessments produced the same findings as teacher questionnaire scores. However, repeated hospital admissions are associated with only a small minority of disorders and account for very little of the variance in children's behaviour.

1798. KRÄWINKEL, E. Über die schulische Betreuung länger in stationärer Behandlung befindlicher Schulkinder im Lande Nordrhein-Westfalen. **[The education of long-stay child patients in North Rhine/Westphalia hospitals.]** *Krankenhaus*, Stuttgart, 1976, July, vol. 68, no. 7, pp. 235-237.

To determine what educational provision was made for schoolchildren in hospital for more than four weeks a questionnaire was sent to the 59 children's hospitals and general hospitals in North Rhine/Westphalia with more than 50 paediatric beds. Replies were received from 39 hospitals with a total of 4,737 paediatric beds. of which 438 were occupied by children whose stay exceeded four weeks: 112 of these children were classified as needing special education. All hospitals were in need of teachers: three of the hospitals had schools. From the figures obtained it is calculated that 50 teachers are needed in North Rhine/Westphalia hospitals if the recommended pupil/teacher ratio of 7:1 is to be maintained.

1799. MCANDREW, I. **Children with a handicap and their families.** *Child Care, Health and Development*, Oxford, 1976, July/Aug., vol. 2, no. 4, pp. 213-238.

In a study at the Royal Children's Hospital, Melbourne, 116 mothers of handicapped children between the ages of five and 10 years were interviewed. The study investigated the problems of attending a public hospital and drew attention to difficulties in communication between the hospital staff and parents. It emphasized the physical demands made on the parents, particularly the mothers, in caring for a handicapped

child and indicated the lack of supporting services in the home, such as home help and childminding services. Attention is drawn to the need for ongoing social work support to the parents and for brothers and sisters to be included in counselling.

1800. CARTER, J. **Parents' meetings in a hospital day centre.** *Child Care, Health and Development*, Oxford, 1976, July/Aug., vol. 2, no. 4, pp. 203-212.

A hospital day centre was attended by preschool children with cerebral palsy, spina bifida and other congenital complaints. Most children attended once or twice a week accompanied by their mothers and were referred primarily for physiotherapy. There was also a nursery school programme and speech therapy, and social work was divided between two social workers. When additional social work time became available it was decided to try to use this in a group programme for mothers. Meetings were held either weekly or fortnightly and were organized in series which lasted usually for 10 to 12 meetings each. Membership was transitional and voluntary, and members fluctuated between three or four and 15 or so. The meetings raised a number of problems, which centred largely on the following aspects: the role of the social worker; the nature of the group; the nature of the day centre; and issues relating to the nature of the handicap. Some preliminary comments are made on the first three, but most of the paper discusses the fourth question.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1692-1695, 1713, 1742, 1828-1830

1801. ISENSCHMID, H. Was ist ein Chronischkranker?—Konsequenzen für die Hospitalisation. **[What is a chronic sick patient? The consequences for hospital care.]** *Veska*, Aarau, 1976, Aug., vol. 40, no. 8, pp. 376-379.

A chronic disease is defined as 'a disease which is of long duration, which usually cannot be completely cured, and which gives rise to above average psychological, social and economic problems for the patient and his environment'. Most patients suffering from chronic diseases are cared for in their own homes by general practitioners with the support of the home nursing service and welfare officers. It is highly desirable that these patients should be admitted to hospital only when this is absolutely necessary. When in-patient care is essential it is important for the patient to occupy the right bed. Chronic patients can be divided into two groups: (i) those where physical illness is predominant; and (ii) those where mental disturbance is predominant. Each of these groups sub-divide into: (A) patients whose illness has not been clarified or who are not in a stable condition; and (B) patients with defined illness who are in a stable condition. As a general principle patients in the different groups should be accommodated as follows: iA, in general hospitals or in the long-stay departments of acute hospitals; iB, in nursing homes; iiA, in psychiatric hospitals or psycho-geriatric departments; iiB, in psychiatric nursing homes.

1802. KANE, R. L. and others. **The use of utilization review records as a source of data on nursing home care.** *American Journal of Public Health*, Washington, 1976, Aug., vol. 66, no. 8, pp. 778-782.

All nursing home patients on Medicaid are reviewed at least yearly under the utiliza-

tion review scheme of the Utah State Division of Health. Data from the utilization review records for 1971-1973 were analysed for purposes other than determination of level of care. Measures of change in patient status and behaviour and physical problems were studied, together with the type of care in the nursing home—personal, intermediate or comprehensive. The collection of data in utilization review schemes can help evaluate the quality of care as well as the appropriateness of placement. Limitations to the analyses were: (i) the data were gathered to assess the level of nursing home care rather than to be the basis for evaluation; (ii) interrater reliability was not sought; (iii) scores had to be arbitrarily derived in some instances; and (iv) the data were derived from reviews of patients' charts which do not necessarily directly reflect the status of the patient. Some areas lent themselves more readily to verification as they corresponded to the more medically oriented aspects. Improvements in this type of data gathering could be made through better record keeping. If planned in advance periodic analyses of records can answer many questions and help evaluate both the quality of care and appropriateness of placement.

1803. SHULMAN, D. and GALANTER, R. **Reorganizing the nursing home industry: a proposal.** *Health and Society*, New York, 1976, vol. 54, no. 2, pp. 129-143.

A proposal is outlined to restructure the nursing home industry in the United States so that market forces will reinforce public policy objectives instead of impeding them as at present. Capital facilities will be owned by the government but with management conducted through a system of competitive contracts with the private sector. The present situation in the nursing industry is outlined. A financial model of a typical nursing home bed reveals that the aspect that attracts capital into nursing homes is not net income but net cash flow, based on depreciation deductions unrelated to a reduction in economic value, not real cash outlays. The present system of private ownership of capital facilities inherently impedes providing a high quality of care. The proposed reorganization is outlined. Market forces, instead of working against quality care, would support quality care in a framework that would involve less regulation than exists today.

1804. MEYER, L. **Apartment clinics keep senior citizens in the community.** *Hospitals*, Chicago, 1976, July 1, vol. 50, no. 13, pp. 63-64, 66-67.

A scheme worked out with the co-operation of the Chicago Housing Authority (CHA) allows St. Anthony Hospital, Chicago, to provide preventive and corrective health care to residents of two CHA blocks of flats and to members of the surrounding communities who are 62 years old or more. No patient is ever sent a bill and nobody is ever turned away through lack of funds. The first clinic was opened in 1975, and was a converted one-bedroom flat in a 400-unit building. The second clinic opened six months later in a new 300-unit CHA building. Hospital staff attend the clinics from 0730 to 1630 from Monday to Friday; doctors hold clinics for two hours each day. The cost of running each clinic is $5,000 a month. All costs for clinical and medical services that are not covered by Medicaid, Medicare or Blue Cross are underwritten by the hospital. An important benefit of the scheme is that continuity of care is provided, and the same nurses are on duty every day to deal with minor ailments. Residents are encouraged to come to the clinics for regular check-ups, and are admitted to St. Anthony Hospital when necessary. A copy of the medical record is kept on file at the hospital and at the

clinic so that the information is available when needed. Free transport is provided making regular scheduled trips between the clinics and the hospital on weekdays. The back up services of every ancillary department are available to all. The hospital's social services department works closely with the clinics and there is good community support for the monthly health education programmes.

1805. HEIMANN, S. R. and LUSK, E. J. **Health facility planning: an example of a decision flexibility approach.** *Operational Research Quarterly*, Oxford, 1976, vol. 27, no. 2, ii, pp. 449-457.

The flexibility criterion may prove very useful in the health care field which is characterized by uncertainty. Design flexibility is applied to a nursing home siting problem confronting a regional comprehensive health planning council in the United States, which wished to increase the target of 34 beds per 1,000 people aged 65 and over to 54 beds per 1,000. The results of the selection of an initial period decision based upon the flexibility criterion, which maximizes the probability of achieving a selected cut-off, are contrasted with those obtained from applying the expected value criterion. The information provided by the comparison of the expectation and flexibility criteria provides the planner with sufficient criteria for decision making since he knows what he is giving up in the criterion not selected.

CANCER

1806. PENSON, J. **Home care service for cancer patients.** *Nursing Times*, London, 1976, Sept. 23, vol. 72, no. 38, pp. 1492-1493.

The Macmillan Unit for Cancer Care, Christchurch Hospital, Dorset [see *Hospital Abstracts*, Vol. 16, Abstract 750] established a home care service in 1975. Some patients are cared for at home before admission, others on discharge from the unit, and some stay at home throughout their illness. This was the first care of its kind to be provided by the National Health Service. Much of the work is concerned with the regular monitoring of pain and other symptoms. Most patients have their medications prescribed by the consultant and these are taken directly to them by the staff from the hospital, which gives an opportunity to reinforce what has already been told the patient about use and dosage. The staff help the patient and family cope with the emotional and practical problems of the situation and advise on diet, exercise, rest, and bowel problems, promoting the patient's general health and comfort. Help with financial problems is also provided. The unit has a small 'library' of equipment including ripple beds and wheelchairs which are lent to the patient as soon as they are needed. The staff of the unit work mainly with the district nurse, but refer to other workers whenever necessary. Working in the community, yet based on the hospital, gives the staff an opportunity to provide continuity of care for the patient. The staff also visit all bereaved relatives to give support and encouragement.

UROLOGY

See Abstract Nos. 1707, 1785, 1786

SURGERY

1807. IRVING, M. and TEMPLE, J. **Surgical audit: one year's experience in a teaching hospital.** *British Medical Journal*, London, 1976, Sept. 25, vol. ii, pp. 746-747.

When Hope Hospital, Salford, was developed into a teaching hospital by the newly expanded University of Manchester Medical School the opportunity was taken to establish a form of regular surgical audit, limited to the general surgical units. Each week the registrars of the units complete a form giving details of: total number of admissions; total number of operations carried out and their nature; number of complications; number of misdiagnoses; and number of deaths. Each week a consultant surgeon surveys the forms to decide which cases should be discussed and informs the junior staff on the units concerned. The audit takes place the next evening and lasts for an hour. This procedure can only be carried out by the doctors who understand the problems being discussed, and consequently it is open only to the staff of the units concerned. It is important that those in charge of the auditing procedure should not be aggressive. The audit has a positive educational role and standards are maintained. The main difficulty would appear to be that of boredom and repetition although there is usually sufficient variety of material each week. An audit carried out less than once a week would mean that many cases would be left undiscussed. The method described is suitable for any district general or teaching hospital provided adequate secretarial help is available.

MATERNITY

See Abstract Nos. 1696, 1749

GYNAECOLOGY

See Abstract No. 1696

OPHTHALMOLOGY

1808. PRICE, M. and PHILLIPS, C. I. **A general practitioner in an ophthalmology accident and emergency department.** *British Medical Journal*, London, 1976, Aug. 28, vol. ii, pp. 509-511.

A general practitioner replaced a senior house officer in the accident and emergency department of an eye hospital in Edinburgh on one morning a week for a year. The performance of the general practitioner after one year was compared with that of a full-time senior house officer who had had 17 months' experience; their performances were about equal. The training of the general practitioner is outlined. The economics of using a general practitioner are assessed. Although a sessional general practitioner costs about 28 per cent more than a senior house officer, the real cost is less because undue length of service or change to another specialty delays achievement of a permanent grade for the senior house officer. The general practitioner also offers continuity. Replacement of some senior house officers by general practitioners would reduce the surplus of senior house officers with poor promotion prospects.

PSYCHIATRY

See also Abstract Nos. 1698, 1714

1809. CHRISTIE, L. S. **Are security units really necessary?** *Nursing Mirror*, Sutton, Surrey, 1976, Aug. 5, vol. 143, no. 6, pp. 69-70.

The need to consider setting up regional security units for the treatment and rehabilitation of mentally disordered offenders has arisen as a result of the change from traditional to contemporary methods of treatment and care in psychiatric hospitals. The problems to be considered are: (i) design and size of the unit; (ii) principles on which they should be run; (iii) number of individual patients; (iv) security; (v) needs of each region; (vi) average length of stay; and (vii) initial cost and revenue consequences. Methods of security are considered, together with staff, site and need for restraint of patients. The reduction in the number of closed wards in psychiatric hospitals and the inability of 'open-door' units and hospitals to take patients who were easily managed a few years ago have created a special problem for the prisons and 'special hospitals'. The need for consultants and nursing staff to re-examine the policy of admission, treatment, care and rehabilitation of their patients is discussed. Greater guidance and leadership is required for staff who deal with the varied and individual needs of patients. Effective decisions must be made before the situation regarding mental illness and violence deteriorates further.

1810. HIRSCHOWITZ, R. G. and LEVY, B., editors. **The changing mental health scene.** New York & London, Wiley, 1976, viii, 382pp. £13.25

The 23 original papers in this volume have been commissioned to present a review of the changes in policy and practice in mental health services during the last two decades. Following an introduction, the papers are arranged in four groups: (i) mental health programmes—changing perspectives and emergency alternatives; (ii) the changing mental health scene—the state of the art; (iii) themes of the mid-seventies; and (iv) leadership strategies and dilemmas.

1811. BRADLEY, V. J. **Policy termination in mental health: the hidden agenda.** *Policy Sciences*, Amsterdam, 1976, June, vol. 7, no. 2, pp. 215-224.

Reform of the care of the mentally ill involves the creation of new policies and the termination of established constraints to the success of such policies. This paper analyses three policy termination objectives in the field of mental health in the United States: (i) the move to phase down, and in some instances close, large state institutions; (ii) the elimination in some states of indefinite involuntary commitment procedures; and (iii) the attempt to transfer responsibility for the provision of direct services from state level to local government and/or private providers of care. Initiatives have come from the executive, the legislature, consumer organizations, and most recently from the public interest law community through the use of litigation. Termination has however met with increasing resistance because of the failure in many instances to match these objectives with positive programme development. In some states, the result has been the dismantling of one system without the commitment of resources necessary to encourage the development of an alternative.

1812. GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. **A review of the Mental Health Act 1959.** London, Her Majesty's Stationery Office, 1976, vii, 75pp. £1.05

This consultative document has been prepared because it seems appropriate to consider whether any amendment should be made to the Mental Health Act 1959 to bring it in line with changes in the mental health services since it was passed and with a view to likely developments in the future. The document is in two parts: (i) powers for compulsory admission and continued detention of patients in hospital and for the control of persons in the community; and (ii) protection of the patient, staff and public. At the end of each part is a summary of the general conclusions.

1813. SOUTH EAST THAMES REGIONAL HEALTH AUTHORITY. **Secure but not secured: a special assessment and supervision service for the South East Thames region.** Croydon, South East Thames Regional Health Authority, 1976, 17pp.

A service is to be provided in the South East Thames Region for mentally disordered patients who are not so ill that they should be in a special maximum security hospital, but who are nevertheless too disruptive for the ordinary wards of a psychiatric hospital. A group of doctors formed a special advisory group to shape a clinical philosophy on which to base the detailed planning of the new service. This document sets out the main conclusions and considerations which have emerged from discussions and studies so far; it is hoped that they will be of assistance during discussions on specific proposals.

1814. **Two hundred years of mental health care in America.** *Hospital & Community Psychiatry*, Washington, 1976, July, vol. 27, no. 7, pp. 461-536.

This series of 26 papers, covering some of the more important developments in mental health care in the United States over the past 200 years, is intended as a course in the history of mental health care. Aspects covered include: the founders of mental health care; the treatment used in the early psychiatric hospitals; the organization of early psychiatric hospitals; the development of the 13 disciplines used for the current treatment of psychiatric patients; development of community mental health centres; and a review of State policies for future developments.

1815. D'ARCY, C., HAM, M. V. and GOLDIE, S. **The development of a comprehensive psychiatric service utilization research data file.** *Canadian Journal of Public Health*, Ottawa, 1976, May/June, vol. 67, no. 3, pp. 237-247.

A research-oriented health information system (HIS) with specific reference to psychiatric diagnoses and the care delivered as a result of these diagnoses is described. The data file is derived from existing social and financial accounting systems and deals with the psychiatric health care of all patients who have been specifically diagnosed as requiring psychiatric treatment and who received care from a medical practitioner in the province of Saskatchewan in 1971 and 1972, irrespective of the facilities in which the care was given. The system and the method of collecting data are outlined. From an initial analysis the HIS has the potential for providing relevant basic information to health care practitioners, administrators and researchers on the extent of psychiatric problems, characteristics and career patterns of patients in Saskatchewan, and provides a basis upon which to evaluate the health care delivery system.

1816. BARO, F. and DELESIE, L. Information en psychiatrie. Une expérience vécue. Une option d'avenir. **[Information in psychiatry: past experience, future choice.]** *Hospitalia*, Brussels, 1976, vol. 20, no. 1, pp. 7-14.

The authors first discuss whether in fact psychiatry lends itself to data processing and whether it is possible to quantify qualitative data. They then consider whether psychiatric data should be transformed into usable information deductively (adapting concrete events to previously determined norms) or inductively (deducting norms from a mass of data), and what type of information system should be selected. They describe the St. Kamillus Psychiatric Centre system, the system of the Belgian Ministry of Health, the United States Multi-State Information System (MSIS), and the Medical Record Foundation (MRF) System. The MSIS is by far the best but it is extremely expensive, and the MRF system, although it only records a total of 25 data relating to the patient, is an acceptable second best. It is now being tried out in eight psychiatric hospitals in Belgium.

1817. WING, J. K. and FRYERS, T. **Psychiatric services in Camberwell and Salford: statistics from the Camberwell and Salford psychiatric registers 1964-1974.** London, Institute of Psychiatry, Social Psychiatry Unit; Manchester, University of Manchester, Department of Community Medicine, 1976, 140pp.

This publication attempts, for the first time, a detailed comparison of statistics from two psychiatric case registers—Camberwell, London, and Salford, Lancashire. Such registers have three main uses—epidemological, evaluative and administrative. This report concentrates on the second: the use of local case registers to evaluate community psychiatric services. It covers: (i) the advantages and limitations of case registers; (ii) the areas and their services; (iii) reported prevalence—adult mental illness; (iv) in-patient care; (v) other services; and (vi) diagnosis. There are appendices on: (i) services for children with psychiatric disorders in Camberwell; (ii) mental health social work in Salford; (iii) services for the mentally handicapped in Camberwell; (iv) the mentally handicapped in Salford 1960-1974; (v) present and future research based on the registers; and (vi) a bibliography.

1818. MARTIN, B. A., KEDWARD, H. B. and EASTWOOD, M. R. **Hospitalization for mental illness: evaluation of admission trends from 1941 to 1971.** *Canadian Medical Association Journal*, Ottawa, 1976, Aug. 21, vol. 115, no. 4, pp. 322-325.

A study of the diagnostic composition of the in-patient population of Ontario and Canadian psychiatric facilities has shown an important change in hospital-treated illness over the period 1941 to 1971. The annual rate of admission has multiplied and there has been a concurrent increase in the number of readmissions. Patients with non-psychotic illnesses accounted for 54 per cent of all admissions to Ontario public psychiatric hospitals in 1971 compared with only eight per cent in 1941. The trend was similar for both first admissions and readmissions. The overall rate for first admissions for psychotic illnesses to in-patient facilities remained constant over time, as did the proportion of readmissions among all admissions. The results of the study dispel the notion that the trend to an increasing proportion of readmissions is due to a rapid turnover of former long-stay psychotic patients. The implications of the study are outlined. Admission to a psychiatric hospital was formerly indicative of serious

illness; patients are now being admitted in large numbers with less severe psychiatric problems. The present admitting practice merits careful reconsideration.

1819. MULHEARN, J. and MOMENY, G. **The psychiatric hospital today: a quality profile.** Cambridge, Mass., Ballinger, 1976, xvii, 139pp. £9.20

This monograph contains a number of findings flowing from an analysis of the unique data base established by the Accreditation Council for Psychiatric Facilities of the Joint Commission on Accreditation of Hospitals. There are chapters on: statistical overview of psychiatric hospitals; the environment of psychiatric hospitals; governing body and management; medical staff; medical records; patient safety; the structure of professional services; and staffing patterns, November 1972 to November 1974.

1820. WOOD, J. C. **Mental health review tribunals: a reappraisal.** *Medicine, Science and the Law*, Bristol, 1976, July, vol. 16, no. 3, pp. 212-218.

Mental Health Review Tribunals were established by the Mental Health Act 1959 to review the cases of psychiatric patients compulsorily detained in hospital. Since that time they have operated with very little attention or publicity. The need for their reappraisal has arisen as a result of the Aarvold and Butler Committee reports and of crimes committed by released patients. There are two difficulties confronting tribunals: (i) the balance between civil liberties and public and personal safety; and (ii) the balancing of legal, medical and social considerations. Detention falls into two broad categories: (i) offenders whose detention arises from the operation of criminal law; and (ii) non-offenders who are detained for the purpose of treating certain defined types of mental disability. Detention and access to tribunals is outlined together with the function of tribunals. The attitudes of the Aarvold and Butler Committees are considered. Possible areas for the reform of review tribunals are: (i) make more explicit the function of tribunals; (ii) consider the use of wider powers; (iii) give power to order charges in type of care; and (iv) consider civil liberties and personal rights of the patient. Reform should be considered as a whole; the division of responsibility between government departments does not simplify the situation. There is little understanding amongst those not directly involved of the exact nature of the work and its problems.

1821. GANTI, A. R., NAGY, E. J. and JOHNSON, J. **An objective patient classification system in psychiatric nursing.** *Canada's Mental Health*, Ottawa, 1976, June, vol. 24, no. 2, pp. 23-26.

An objective patient classification system is considered indispensable for analysing care in view of increasing demands for quality care and cost containment. The most common categories into which patients are classified are listed together with subject field and types of studies. The Mental Health Division, Creighton Memorial Saint Joseph Hospital, Omaha, Nebr., established a patient classification scheme to: (i) assess needs on a short-term basis; (ii) establish staff rotas; (iii) plan emergency evacuation; (iv) plan patient care; (v) summarize all needs within a ward; and (vi) investigate a new system of charging patients. The methodology is discussed. A patient classification form was designed for easier and quicker classification of patients in four areas: community therapy, acute intensive care, adolescent service, and children's service. The difficulties encountered when implementing the system are outlined. The benefits include: (i) development of constructive ideas; (ii) reduced staff shortages;

(iii) guide for in-service training schemes; (iv) information on patients' charges now based on care received; (v) check list for evacuation; and (vi) summary of patient's condition.

1822. TOWELL, D. and DARTINGTON, T. **Encouraging innovations in hospital care.** *Journal of Advanced Nursing*, Oxford, 1976, Sept., vol. 1, no. 5, pp. 391-398.

A case study is presented of a 700-bed psychiatric hospital serving a rural area in which substantial changes in the care of old people have been made in recent years. Three points can be inferred from the case study: (i) the progress made in the hospital demonstrates the possibility of staff bringing about improvements in health care; (ii) achieving change can be a complex, lengthy and difficult process; and (iii) changes can be encouraged internally and externally by the appropriate leadership, policies and support. An analysis of the processes involved in change is summarized, and provides the basis for a set of general principles to guide the planning of efforts to encourage improvements in hospital care. Attention is drawn to the variety of channels through which patient care may be influenced, the importance of harnessing the motivation of care staff, and need to provide support in working through emotional barriers to change, the complementary roles of staff at different levels and in different professions, and the scope for mutual exchanges of experience between different units. Suggestions in which these principles might be applied are outlined.

1823. WHITEHEAD, T. **Difficult patients.** *Health and Social Service Journal*, London, 1976, July 31, vol. 86, no. 4501, p. 1397.

Classifying and labelling mentally ill patients can be as harmful as it can be useful. Before the establishment of the National Health Service (NHS) most psychiatry was practised in psychiatric hospitals; there was a small number of difficult patients and dangerous psychotics but these could be handled successfully as far as the institution was concerned. The two changes brought about by the NHS, liberalization and a greater range of clients, have placed considerable stress on the older mental health service staff and there are now serious anxieties about the difficult psychotic which were not present in the past. The provision of special units staffed by people with an interest in personality disorders is a solution which relieves the general psychiatric service and provides help and support for the client. Many 'difficult' patients have needs which are not met by conventional psychiatric services, and in such cases it may be worthwhile examining and categorizing those who appear to be difficult. There should be acknowledgement of the existence of groups outside the official services that help individuals with personality disorders, and co-operation between these groups and orthodox psychiatry.

1824. DENTON, L. R. **'Noc noc'—What's there? Three basic considerations in evaluating community mental health center programs.** *Canada's Mental Health*, Ottawa, 1976, June, vol. 24, no. 2, pp. 19-23.

Programme evaluation serves a more applied and pragmatic purpose than traditional research. The early approaches over-emphasized the application of traditional experimental research methods, which were found wanting. Relevant evaluation for a scheme depends upon knowing the needs (N) of a scheme, the objectives (O) and developing relevant criteria (C). Without these requirements only superficial answers can be given,

and it will not be possible to estimate whether the programmes are appropriate, adequate, efficient and effective.

1825. DURRANT, B. W. **Back to the community with a hospital-made family.** *Health and Social Service Journal*, London, 1976, Sept. 4, vol. 86, no. 4506, pp. 1592-1593.

Oakwood Hospital, Maidstone, has established a scheme for the training and placement of psychiatric patients as family groups in private houses in the community. Ten group homes have been acquired. A multidisciplinary team comprising consultant psychiatrist, social worker and nursing officer liaises with colleagues in various sectors of the hospital, bringing their own expertise to the scheme. The training schedules on the wards are outlined. By the time the patient has completed the training it is hoped that a place in a group home will become available. The scheme caters for patients of stabilized mental health, not older than 65, and with no history of psychosexual difficulties. Nominations for group home training are accompanied by a clinical summary and social assessment and are forwarded by the consultant to the group home social workers. The running costs for the houses are worked out on an inclusive charge made to each resident. The homes are, on average, no larger than four bedrooms with two reception rooms. In the first three years of the scheme, 47 patients completed the training and moved into houses as integrated family units. Of these 21 patients were male and 26 female. The average length of stay in hospital before discharge was 19 years.

1826. BARKLEY, A. L., PIXLEY, F. and WALKER, C. **Industrial therapy: a study of success rates over an eight-year period.** *Rehabilitation Literature*, Chicago, 1976, May, vol. 37, no. 5, pp. 130-139, 144.

An industrial therapy programme was introduced at Kingston (Ont.) Psychiatric Hospital in 1963 and has operated continuously since that time. This study was carried out to determine the success rate of patients attending the programme during the period January 1964 to September 1972. A five-point scale of social success and a 10-point scale of vocational success were developed for the study. All patients were rated in terms of both vocational and social success three months after leaving the programme. Six different patient variables were examined: time in hospital, number of admissions, age on starting industrial therapy programme, time in the programme, IQ, and education. Of all the patients, 58.40 per cent showed at least some improvement vocationally and 58.97 per cent showed at least some improvement in terms of social functioning; 12.81 per cent obtained full-time competitive employment and 26.50 per cent returned to a completely independent social situation in the community. On the basis of these results, it is concluded that the industrial therapy programme has made a very significant contribution to the treatment and rehabilitation of the patients.

1827. DELAGE, J. **A regional mental health centre for children and adolescents: the department of psychiatry for children and adolescents at the Hôtel-Dieu du Sacré-Coeur de Jésus, Quebec City.** *Canada's Mental Health*, Ottawa, 1976, June, vol. 24, no. 2, pp. 17-19.

The department of psychiatry, Hôtel-Dieu du Sacré-Coeur de Jésus, Quebec City, serves as the local and regional diagnostic centre for children and adolescents who have

minor or major problems in adapting to their family, school or social milieu. It also serves as a provincial teaching centre for students and trainees at all levels. The team approach is used and there is close co-ordination between the psychiatrists and referring agencies. The department's clinical and administrative problems are discussed once a week. The area served by the department is divided into three population sectors and multidisciplinary teams composed of psychiatrists, nurses and other professional workers are assigned to each. Two child care units admit children up to the age of 13, and offer a therapeutic community close to the ideal conditions needed for the treatment, which reintegrates the child into his normal surroundings. A day care centre for atypical children has been established for young children suffering from psychoses. A centre for adolescents offers various services for clients of both sexes from 14 to 17: out-patient consultation, day care centre and in-patient stay. Consultant mobile teams tour regional institutions for the mentally handicapped and children with emotional difficulties, courts, training schools and rehabilitation units. A research group promoting research activity in the department was created under the guidance of the department's psychiatrists. Special integrated classes for children and adolescents have also been established. The teaching and professional training scheme is outlined.

1828. MILLER, A. E. **Geriatrics in psychiatry.** *Nursing Mirror*, Sutton, Surrey, 1976, June 3, vol. 142, no. 23, pp. 52-55.

An examination of the national statistics for psychiatric in-patients reveals that younger, predominantly psychotic patients are leaving hospital or are being admitted for short times only, and their places are taken by psycho-geriatric patients who tend to stay in hospital often until they die. Various policy documents are analysed. The situation in Clifton Hospital, York, is surveyed. Great changes have already taken place in psychiatric hospitals; steps required to help psychiatric nurses to cope with these changes include: (i) student nurses should receive adequate instruction in the care of geriatric patients; (ii) some qualified nurses should have both psychiatric and geriatric training; (iii) the establishment of centres of excellence in psycho-geriatric care with the aim of training and developing new approaches in psycho-geriatrics; and (iv) community nurses should play an important role in educating and co-ordinating services for psycho-geriatric patients.

1829. ROSS, H. E. and KEDWARD, H. B. **Demographic and social correlates of psychogeriatric hospitalization.** *Social Psychiatry*, Berlin, 1976, July 15, vol. 11, no. 3, pp. 121-126.

A sample of 100 psycho-geriatric admissions to three Toronto hospitals was examined in order to determine what demographic and sociocultural groups are at risk for admission to hospital as psycho-geriatric patients. The sample was compared demographically to the population aged 65 and over from which the patients were drawn. The results indicated that high-risk groups included separated and widowed men, elderly people living alone, residents in old people's homes and nursing homes and women with smaller than average families. The findings support the hypothesis that social isolation tends to lead to institutional admission. The implications of the association between social factors and psycho-geriatric admission rates for primary and secondary health services are considered. Recommendations include: the need for more supportive social services; prompt treatment of identified cases; and provision of psychiatric supervision in old people's and nursing homes.

1830. PASKER, P., THOMAS, J. P. R. and ASHLEY, J. S. A. **The elderly mentally ill—whose responsibility?** *British Medical Journal*, London, 1976, July 17, vol. ii, pp. 164-166.

A study to evaluate the need for health and social services for the elderly mentally ill is reported. It is based on a one-day census of the 40,000 persons aged 65 and over in an area in north-east Essex with a population of 220,000. Data were obtained on the nursing needs of the 2,162 elderly people in hospital or local authority residential homes for the elderly, or living at home receiving care from the community nursing service. One-third were classified as having psychiatric problems, more than half of them being outside hospital. Residential homes and community nurses play a significant part in caring for the elderly mentally ill, and an integrated but flexible manpower policy is important.

1831. KING EDWARD'S HOSPITAL FUND FOR LONDON. **Collaboration between parents and professionals: a statement by a group of parents and professionals meeting under the auspices of the King's Fund Centre and the Association of Professions for the Mentally Handicapped.** (Mental Handicap Papers No. 9) London, King's Fund Centre, 1976, 15pp. £0.25

This paper is the result of discussions attended at various times by 23 people, including professional staff in several disciplines and parents of the mentally handicapped. It outlines some factors essential for improved collaboration between parents and staff in order to improve the quality of care.

1832. MOORES, B. and GRANT, G. W. B. **On the nature and incidence of staff-patient interactions in hospitals for the mentally handicapped.** *International Journal of Nursing Studies*, Oxford, 1976, vol. 13, no. 2, pp. 69-81.

A study aimed at ascertaining the implications for patient care of the wide variation in staffing levels in hospitals for the mentally handicapped was carried out in two hospitals. Matched samples of 30 patients were studied for a total of 21 hours which were split into seven-hour periods over three days. No more than four patients were under observation at any one time. The results indicated that: (i) a relatively small proportion of patients are on the receiving or giving end of a disproportionately large number of interactions; and (ii) in hospital A little training appeared to go on in the ward situation or in the medical therapy unit in contrast to hospital B. The results of the study indicate that it is possible to produce a meaningful categorization of staff-patient interactions suited to this type of setting which yields interpretable results. The approach is not restricted to the field of mental handicap and could be developed for alternative settings.

1833. ARMSTRONG, J. and others. **Two mixed sex wards for severely and profoundly mentally handicapped adults.** *British Journal of Mental Subnormality*, Birmingham, 1976, June, vol. 22, no. 42, pp. 35-40.

A study carried out in Strathmartine Hospital, Dundee, aimed to describe and evaluate the creation of two mixed sex wards for profoundly and severely mentally handicapped adult patients. Two wards each accommodating 50 adult patients, one for males, one for females, contained a mixture of profoundly mentally handicapped individuals and less severely handicapped patients. The patients were regrouped

according to degree of handicap. Observations were made under the following headings: ward behaviour, clinical features of the patients, and social information about patients and wards. The results indicate an overall increase in the patients' activity levels; the majority of the increase was due to 'negative behaviour'. The change was welcomed by a majority of the patients who could express a view; relatives were favourable in their response, and staff reaction was also favourable. Staff sickness fell. The survey indicated that mixed-sex wards can be established without any major adverse effects although it is difficult to conclude whether the change has been beneficial or not. The setting up of a large ward group requires a good share of the hospital's resources to maintain its morale.

1834. HELEY, R. W. **Continuity of care.** *Nursing Times*, London, 1976, June 24, vol. 72, no. 25, pp. 975-977.

Beechcroft day care unit, Oakwood Hall Hospital, Rotherham, has established a new service for severely handicapped and retarded patients, particularly adults, as there were no day care facilities in the Rotherham area. Facilities include the day care unit and residential accommodation for up to 60 adults and 24 children. The problems encountered are outlined. A parent/nurse association has been developed to extend the nurse/patient relationship beyond the conventional clinical contact made during the usual hospital visit and to stimulate and guide parents in methods of care that would prove most beneficial to the patients. The three areas of information and education required by parents are clinical, social and physical. By means of regular multi-disciplinary meetings and close co-operation between voluntary societies, social workers and health visitors, these needs could be filled. The unit is open for seven days a week and accepts patients for any five out of seven days in order to keep the days of attendance flexible, but without the patients becoming full-time residents. Problems of staffing and transport are outlined. Facilities offered by the centre also include a school for residential and day patients, short-term care, occupational therapy, physiotherapy, an out-patient clinic and a pre-school play group which caters for both mentally handicapped and normal children.

1835. DUNHAM, M. and others. **Children's units in hospitals for the mentally handicapped, some findings relating to architectural briefing.** *British Journal of Mental Subnormality*, Birmingham, 1976, June, vol. 22, no. 42, pp. 47-51.

The mentally handicapped child population of Chelmsley Hospital, Birmingham, was analysed with a view to obtaining information regarding the type and degree of attention required by their physical handicaps. The analysis was to establish whether the domestic design of living units ought to be adjusted or whether needs could be met within the domestic environment. A philosophy of grouping children according to their interests and adjusting their environment to their needs was put forward. The conclusion drawn indicates that future living units should be purely domestic and there is no justification for making special allowances for children. However, by designing different types of units which give opportunities for learning, the domestic environment would help in the task of developing the mentally handicapped child.

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